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FIG.1A

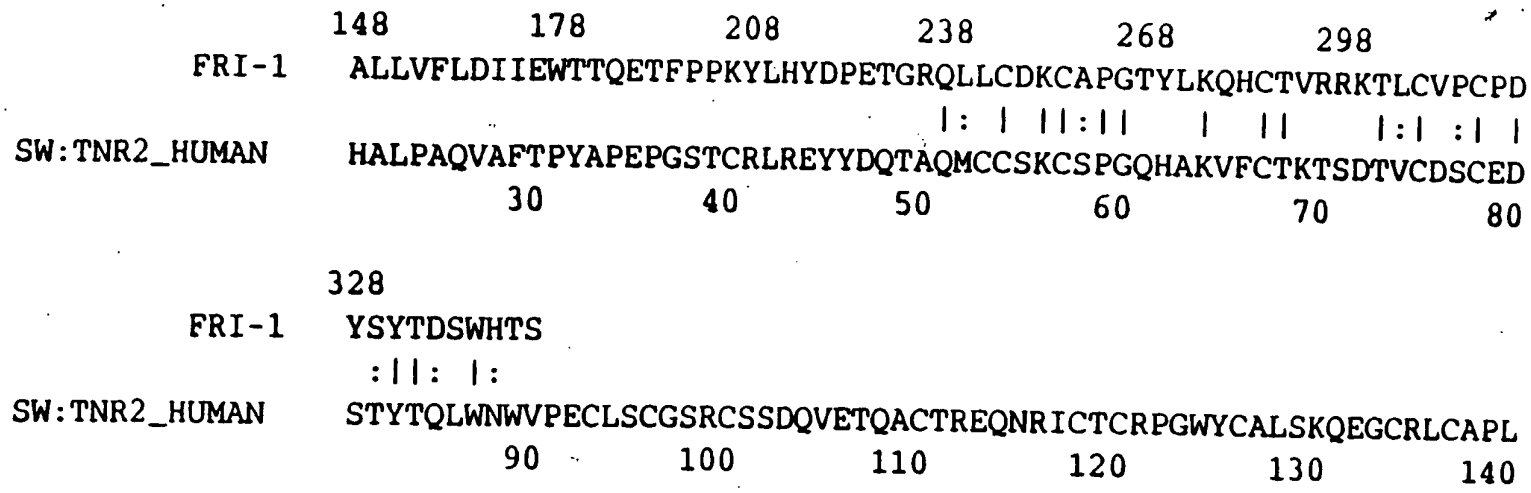


FIG.1B

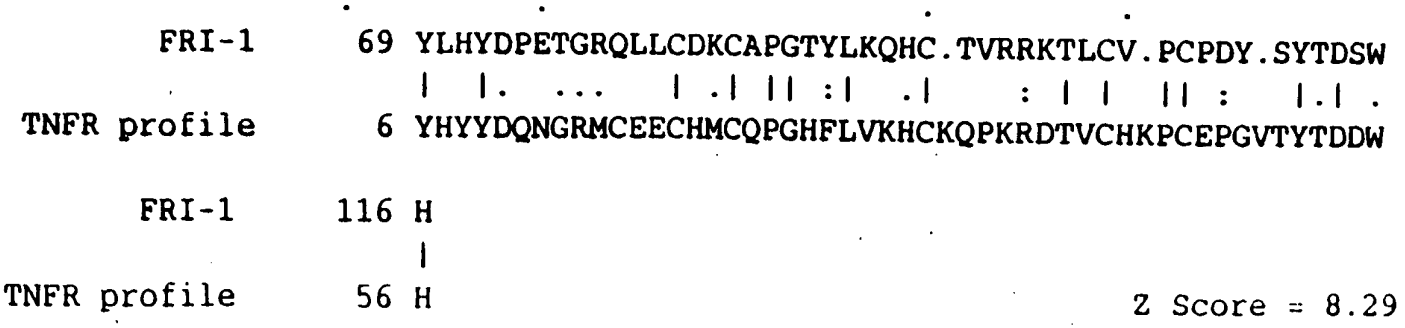


FIG. IC

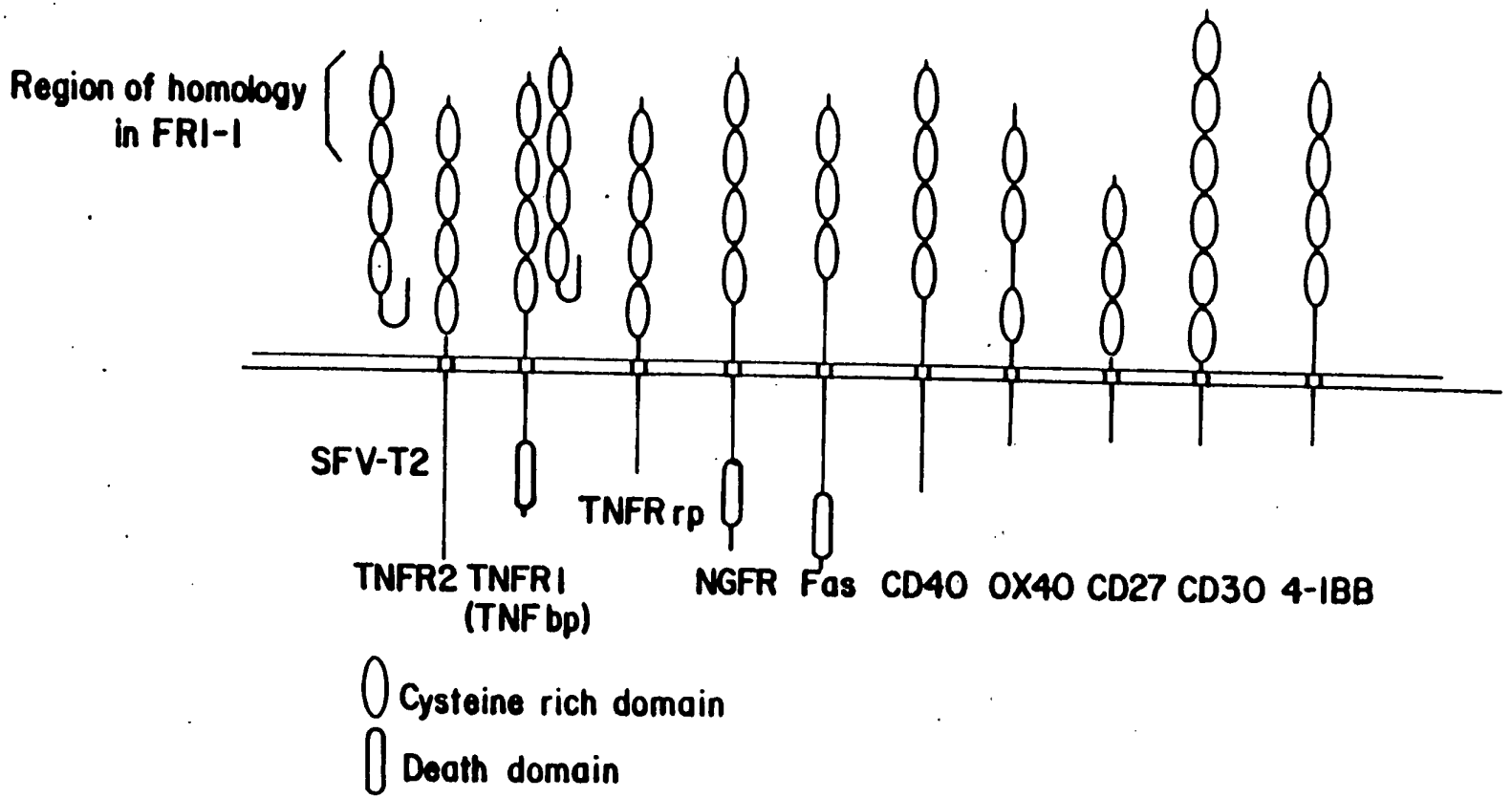


FIG.2A

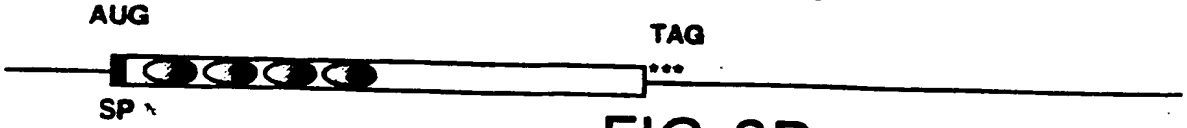


FIG.2B

```
          10                  30                  50
ATCAAAGGCAGGGCATACTTCCTGTTGCCCAGACCTTATATAAAACGTCATGTTCGCCTG
          70                  90                 110
GGCAGCAGAGAAGCACCTAGCACTGGCCCAGCGGCTGCCGCCTGAGGTTTCCAGAGGACC
         130                 150                 170
ACAATGAACAAGTGGCTGTGCTGTGCACTCCTGGTGTTCTTGGACATCATTGAATGGACA
    M   N   K   W   L   C   C   A   L   L   V   F   L   D   I   I   E   W   T
         190                 210                 230
ACCCAGGAAACCTTTCCTCCAAAATACTTGCATTATGACCCAGAAACCGGACGTCAGCTC
T   Q   E   T   F   P   P   K   Y   L   H   Y   D   P   E   T   G   R   Q   L
         250                 270                 290
TTGTGTGACAAATGTGCTCCTGGCACCTACCTAAAACAGCACTGCACAGTCAGGAGGAAG
L   C   D   K   C   A   P   G   T   Y   L   K   Q   H   C   T   V   R   R   K
         310                 330                 350
ACACTGTGTGTCCCTTGCCCTGACTACTCTTATACAGACAGCTGGCACACGAGTGATGAA
T   L   C   V   P   C   P   D   Y   S   Y   T   D   S   W   H   T   S   D   E
         370                 390                 410
TGCGTGTACTGCAGCCCCGTGTGCAAGGAACTGCAGACCGTGAAACAGGAGTGCAACCGC
C   V   Y   C   S   P   V   C   K   E   L   Q   T   V   K   Q   E   C   N   R
         430                 450                 470
ACCCACAACCGAGTGTGCGAATGTGAGGAAGGGCGCTACCTGGAGCTCGAATTCTGCTTG
T   H   N   R   V   C   E   C   E   E   G   R   Y   L   E   L   E   F   C   L
         490                 510                 530
AAGCACCGGAGCTGTCCCCCAGGCTTGGGTGTGCTGCAGGCTGGGACCCCAGAGCGAAAC
K   H   R   S   C   P   P   G   L   G   V   L   Q   A   G   T   P   E   R   N
         550                 570                 590
ACGGTTTGCAAAAGATGTCCGGATGGGTTCTTCTCAGGTGAGACGTCATCGAAAGCACCC
T   V   C   K   R   C   P   D   G   F   F   S   G   E   T   S   S   K   A   P
         610                 630                 650
TGTAGGAAACACACCAACTGCAGCTCACTTGGCCTCCTGCTAATTCAGAAAGGAAATGCA
C   R   K   H   T   N   C   S   S   L   G   L   L   L   I   Q   K   G   N   A
         670                 690                 710
ACACATGACAATGTATGTTCCGGAAACAGAGAAGCAACTCAAAATTGTGGAATAGATGTC
T   H   D   N   V   C   S   G   N   R   E   A   T   Q   N   C   G   I   D   V
         730                 750                 770
ACCCTGTGCGAAGAGGCATTCTTCAGGTTTGCTGTGCCTACCAAGATTATACCGAATTGG
T   L   C   E   E   A   F   F   R   F   A   V   P   T   K   I   I   P   N   W
         790                 810                 830
CTGAGTGTTCTGGTGGACAGTTTGCCTGGGACCAAAGTGAATGCAGAGAGTGTAGAGAGG
L   S   V   L   V   D   S   L   P   G   T   K   V   N   A   E   S   V   E   R
         850                 870                 890
ATAAAACGGAGACACAGCTCGCAAGAGCAAACTTTCCAGCTACTTAAGCTGTGGAAGCAT
I   K   R   R   H   S   S   Q   E   Q   T   F   Q   L   L   K   L   W   K   H
         910                 930                 950
CAAAACAGAGACCAGGAAATGGTGAAGAAGATCATCCAAGACATTGACCTCTGTGAAAGC
Q   N   R   D   Q   E   M   V   K   K   I   I   Q   D   I   D   L   C   E   S
         970                 990                1010
AGTGTGCAACGGCATATCGGCCACGCGAACCTCACCACAGAGCAGCTCCGCATCTTGATG
S   V   Q   R   H   I   G   H   A   N   L   T   T   E   Q   L   R   I   L   M
```

FIG.2C

```
   1030                                       1050                                        1070
GAGAGCTTGCCTGGGAAGAAGATCAGCCCAGACGAGATTGAGAGAACGAGAAAGACCTGC
E  S  L  P  G  K  K  I  S  P  D  E  I  E  R  T  R  K  T  C
   1090                                       1110                                        1130
AAACCCAGCGAGCAGCTCCTGAAGCTACTGAGCTTGTGGAGGATCAAAAATGGAGACCAA
K  P  S  E  Q  L  L  K  L  L  S  L  W  R  I  K  N  G  D  Q
   1150                                       1170                                        1190
GACACCTTGAAGGGCCTGATGTACGCACTCAAGCACTTGAAAGCATACCACTTTCCCAAA
D  T  L  K  G  L  M  Y  A  L  K  H  L  K  A  Y  H  F  P  K
   1210                                       1230                                        1250
ACCGTCACCCACAGTCTGAGGAAGACCATCAGGTTCTTGCACAGCTTCACCATGTACCGA
T  V  T  H  S  L  R  K  T  I  R  F  L  H  S  F  T  M  Y  R
   1270                                       1290                                        1310
TTGTATCAGAAACTCTTTCTAGAAATGATAGGGAATCAGGTTCAATCAGTGAAGATAAGC
L  Y  Q  K  L  F  L  E  M  I  G  N  Q  V  Q  S  V  K  I  S
   1330                                       1350                                        1370
TGCTTATAGTTAGGAATGGTCACTGGGCTGTTTCTTCAGGATGGGCCAACACTGATGGAG
C  L
   1390                                       1410                                        1430
CAGATGGCTGCTTCTCCGGCTCTTGAAATGGCAGTTGATTCCTTTCTCATCAGTTGGTGG
   1450                                       1470                                        1490
GAATGAAGATCCTCCAGCCCAACACACACACTGGGGAGTCTGAGTCAGGAGAGTGAGGCA
   1510                                       1530                                        1550
GGCTATTTGATAATTGTGCAAAGCTGCCAGGTGTACACCTAGAAAGTCAAGCACCCTGAG
   1570                                       1590                                        1610
AAAGAGGATATTTTTATAACCTCAAACATAGGCCCTTTCCTTCCTCTCCTTATGGATGAG
   1630                                       1650                                        1670
TACTCAGAAGGCTTCTACTATCTTCTGTGTCATCCCTAGATGAAGGCCTCTTTTATTTAT
   1690                                       1710                                        1730
TTTTTTATTCTTTTTTTCGGAGCTGGGGACCGAACCCAGGGCCTTGCGCTTGCGAGGCAA
   1750                                       1770                                        1790
GTGCTCTACCACTGAGCTAAATCTCCAACCCCTGAAGGCCTCTTTCTTTCTGCCTCTGAT
   1810                                       1830                                        1850
AGTCTATGACATTCTTTTTTCTACAATTCGTATCAGGTGCACGAGCCTTATCCCATTTGT
   1870                                       1890                                        1910
AGGTTTCTAGGCAAGTTGACCGTTAGCTATTTTTCCCTCTGAAGATTTGATTCGAGTTGC
   1930                                       1950                                        1970
AGACTTGGCTAGACAAGCAGGGGTAGGTTATGGTAGTTTATTTAACAGACTGCCACCAGG
   1990                                       2010                                        2030
AGTCCAGTGTTTCTTGTTCCTCTGTAGTTGTACCTAAGCTGACTCCAAGTACATTTAGTA
   2050                                       2070                                        2090
TGAAAAATAATCAACAAATTTTATTCCTTCTATCAACATTGGCTAGCTTTGTTTCAGGGC
   2110                                       2130                                        2150
ACTAAAAGAAACTACTATATGGAGAAAGAATTGATATTGCCCCCAACGTTCAACAACCCA
   2170                                       2190                                        2210
ATAGTTTATCCAGCTGTCATGCCTGGTTCAGTGTCTACTGACTATGCGCCCTCTTATTAC
   2230                                       2250                                        2270
TGCATGCAGTAATTCAACTGGAAATAGTAATAATAATAATAGAAATAAAATCTAGACTCC
   2290                                       2310                                        2330
ATTGGATCTCTCTGAATATGGGAATATCTAACTTAAGAAGCTTTGAGATTTCAGTTGTGT
   2350                                       2370                                        2390
TAAAGGCTTTTATTAAAAAGCTGATGCTCTTCTGTAAAAGTTACTAATATATCTGTAAGA
   2410                                       2430
CTATTACAGTATTGCTATTTATATCCATCCAG
```

FIG.2D

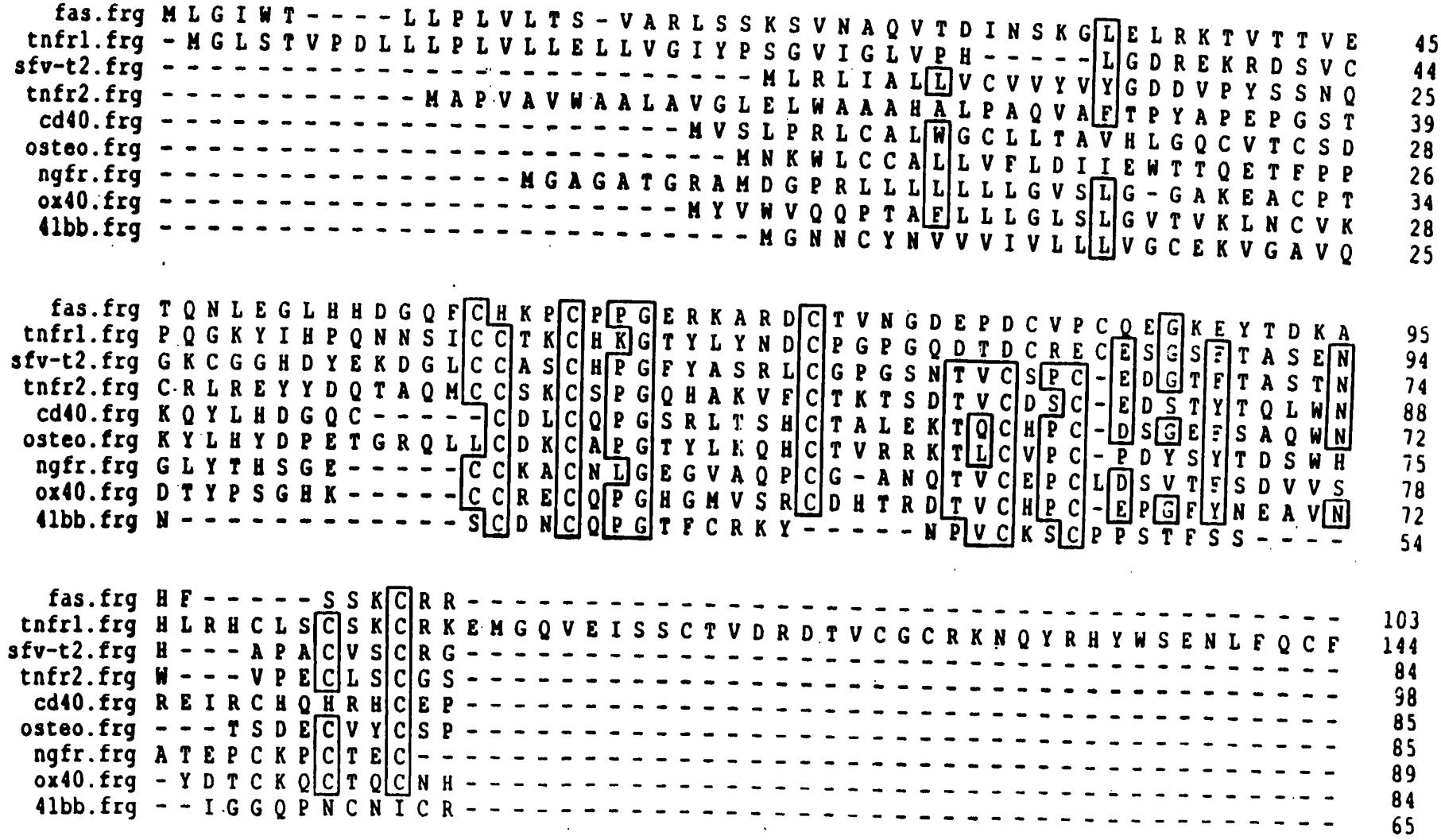


FIG.2E

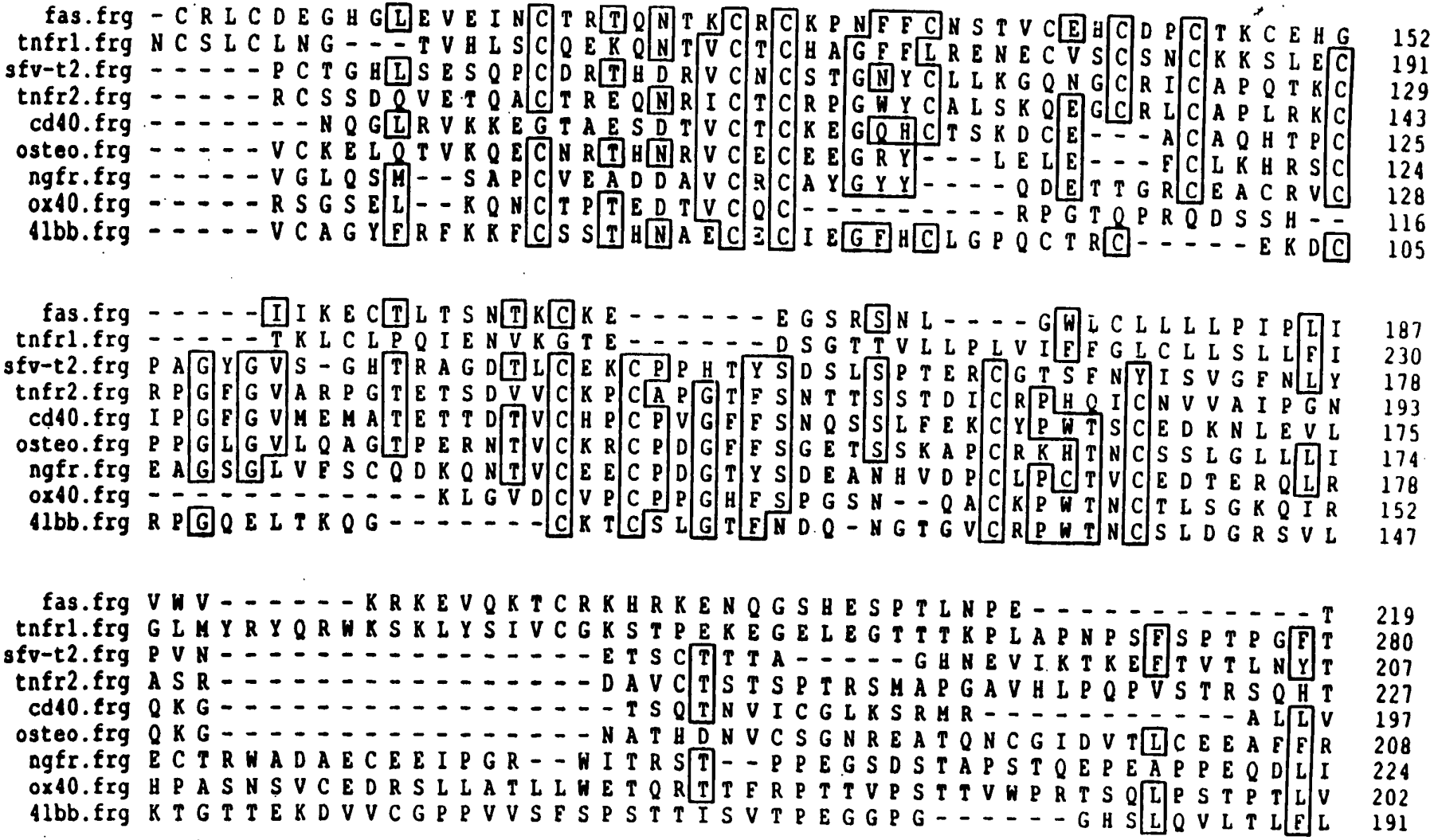
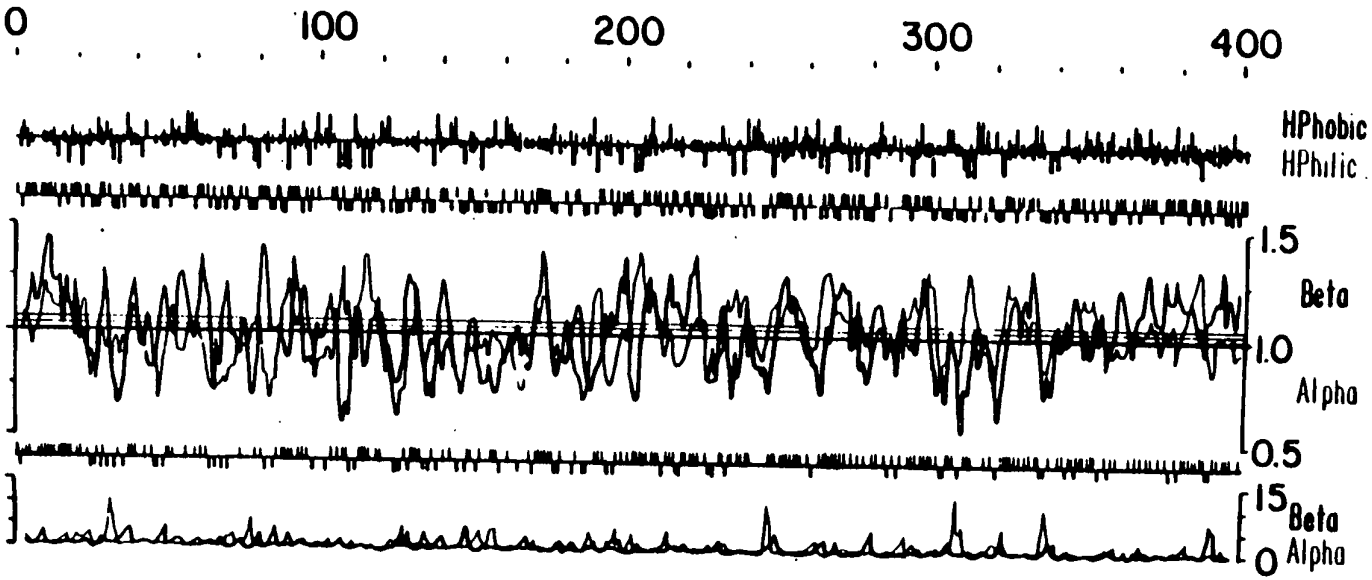


FIG.3A
FIG.3B
FIG.3C
FIG.3D
FIG.3E



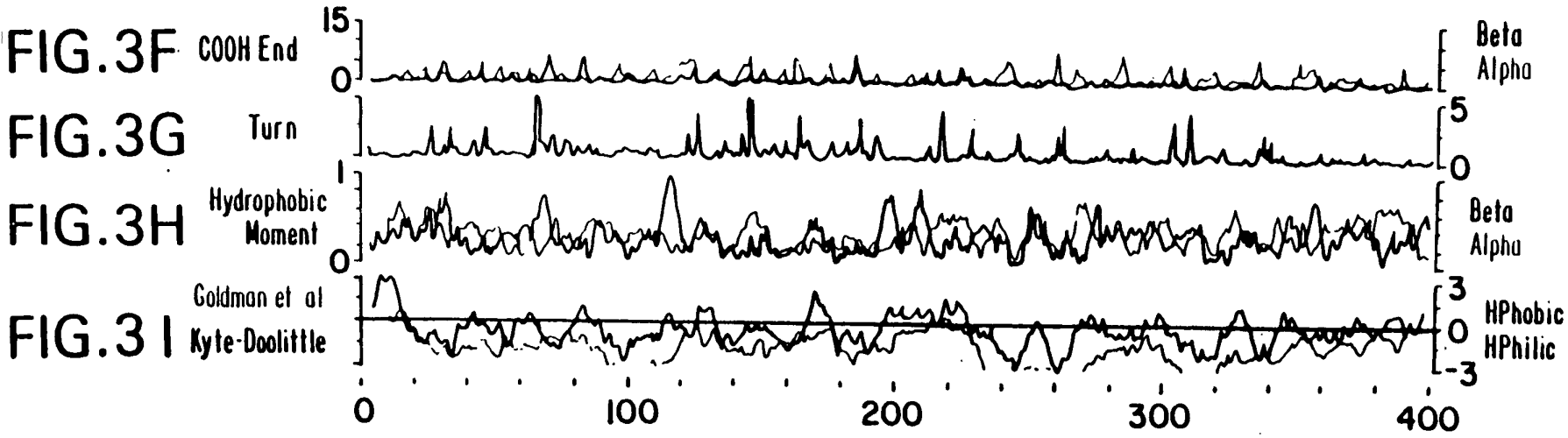


FIG.4A

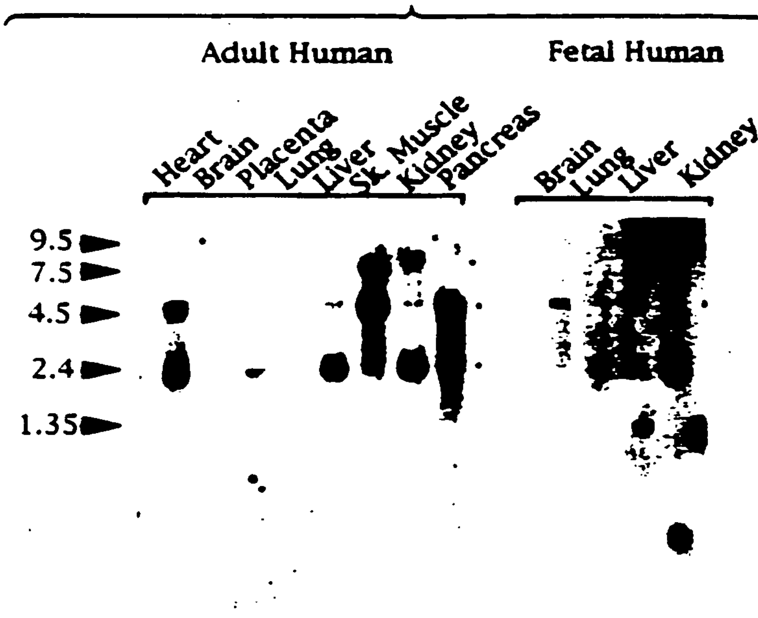

Adult Human
Fetal Human
Heart
Brain
Placenta
Lung
Liver
Sk. Muscle
Kidney
Pancreas
Brain
Lung
Liver
Kidney
9.5
7.5
4.5
2.4
1.35

FIG.4B

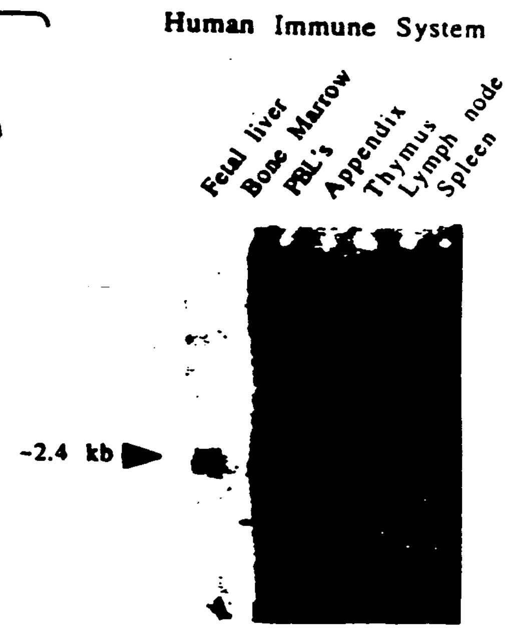

Human Immune System
Fetal liver
Bone Marrow
PBL's
Appendix
Thymus
Lymph node
Spleen
~2.4 kb

FIG.5

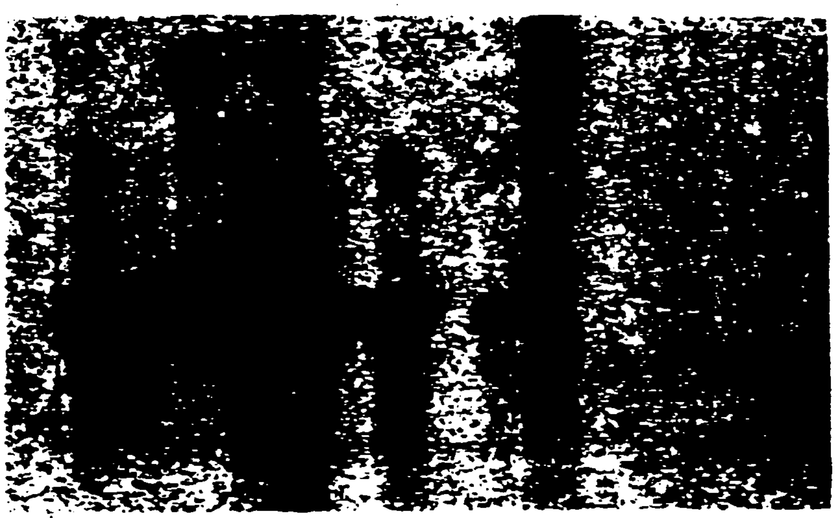


FIG.6A

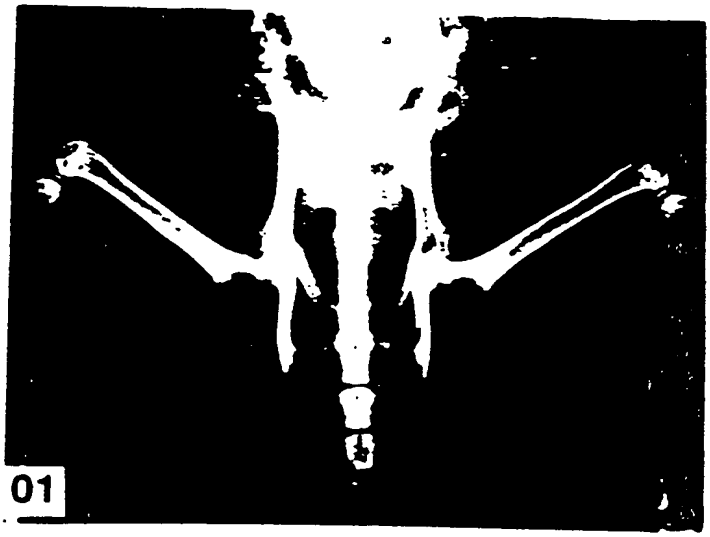


FIG.6B

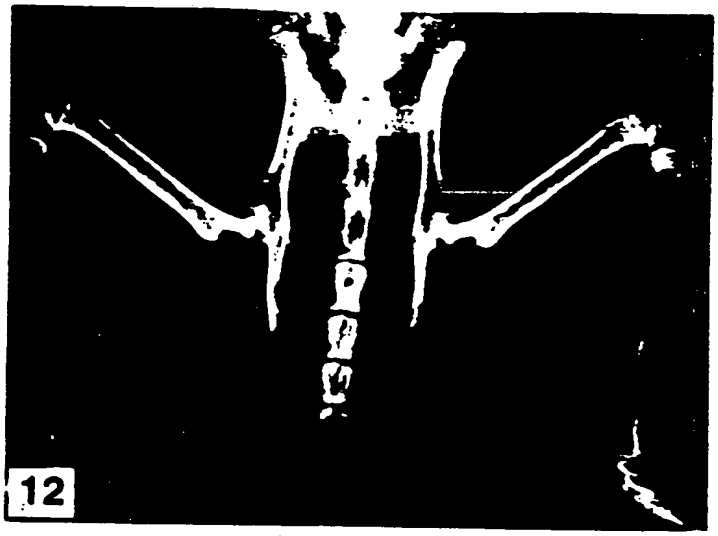


FIG.6C

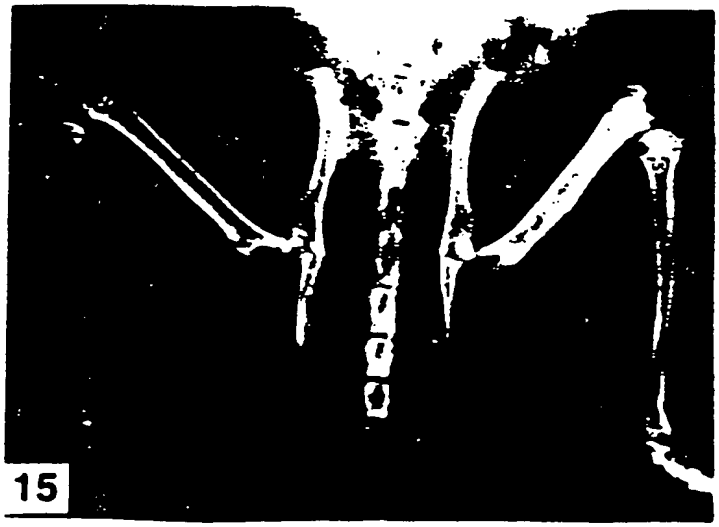


FIG.6D

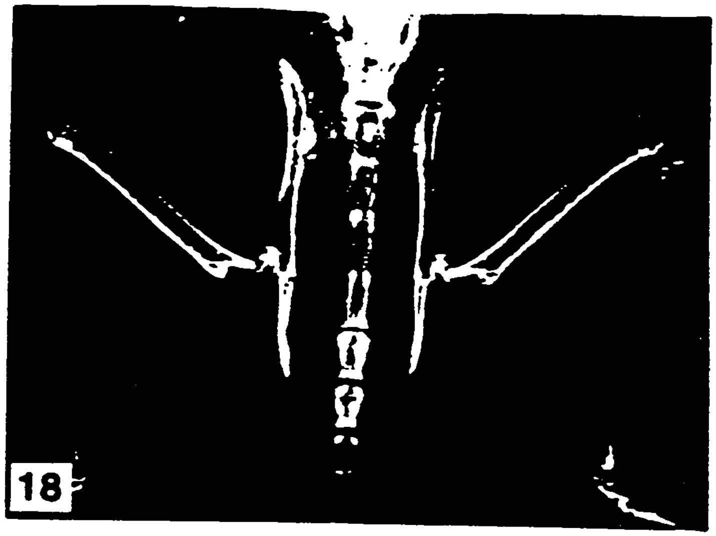


FIG.6E

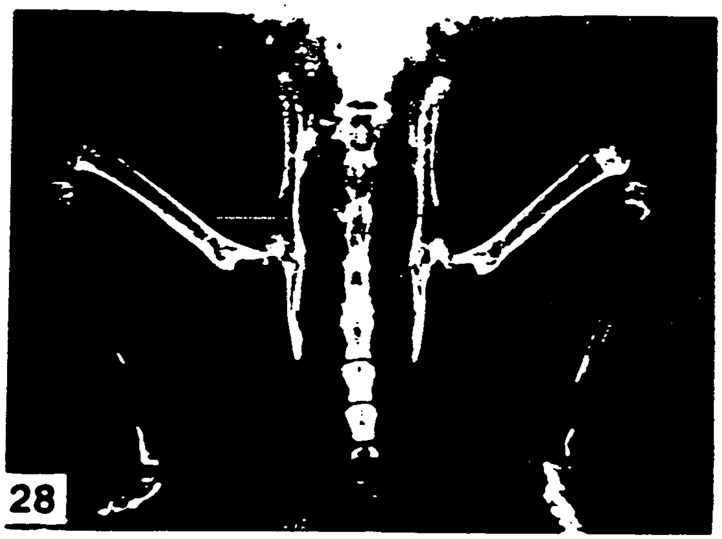


FIG.6F

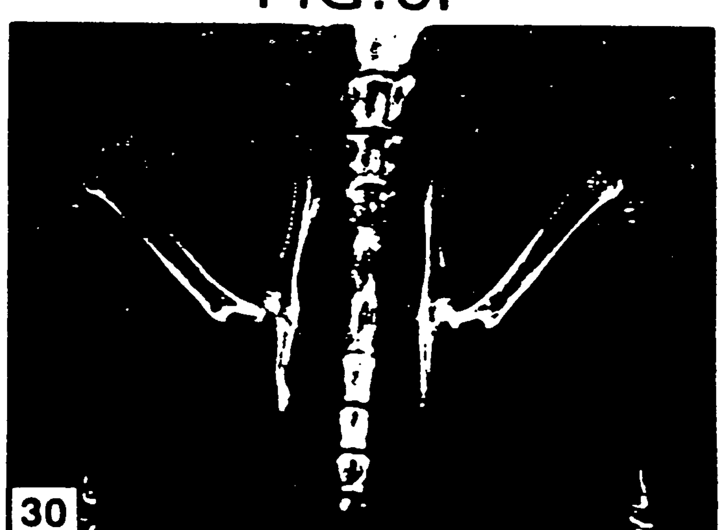


FIG.6G

FIG.6H

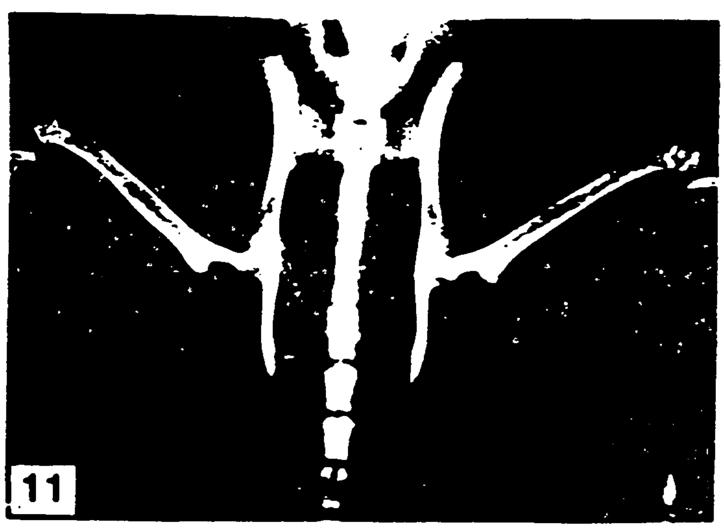


FIG.6I

FIG.6J

FIG.7A

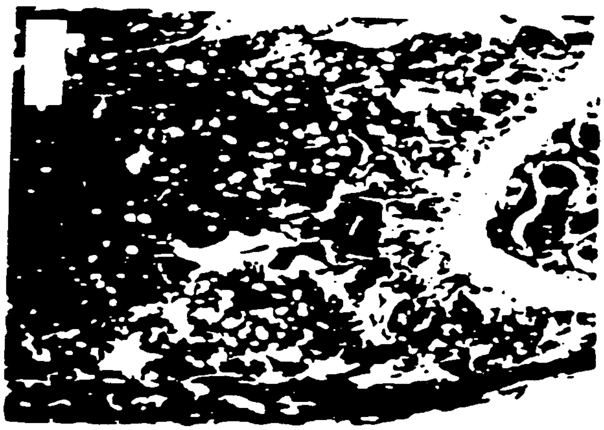


FIG.7B

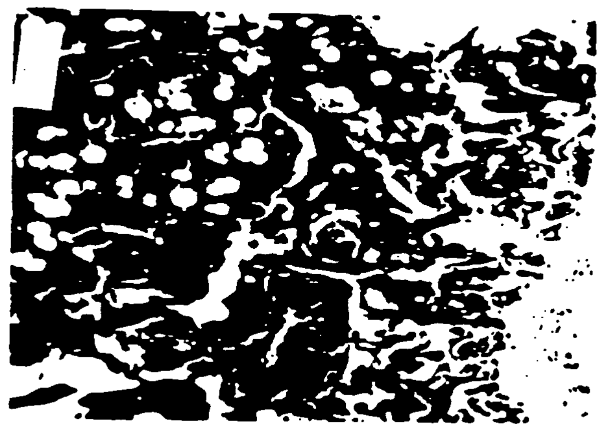


FIG.7C

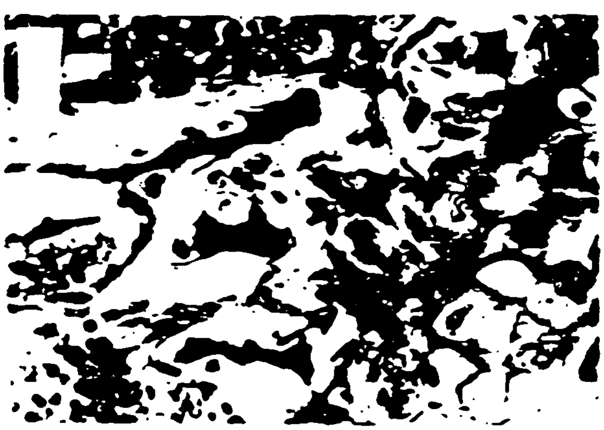


FIG.7D

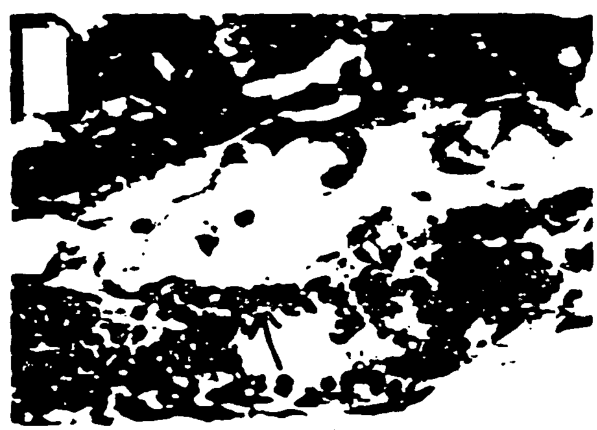


FIG.7E

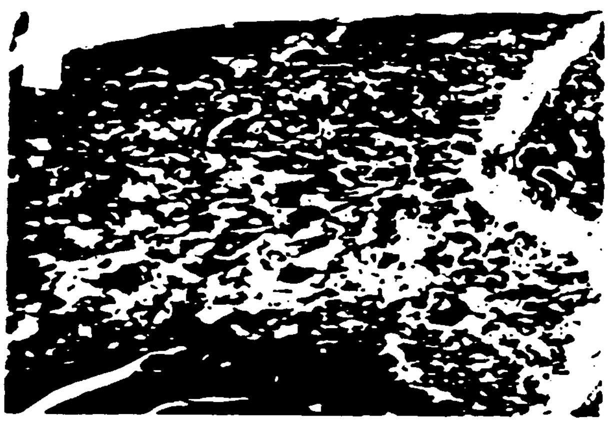


FIG.7F

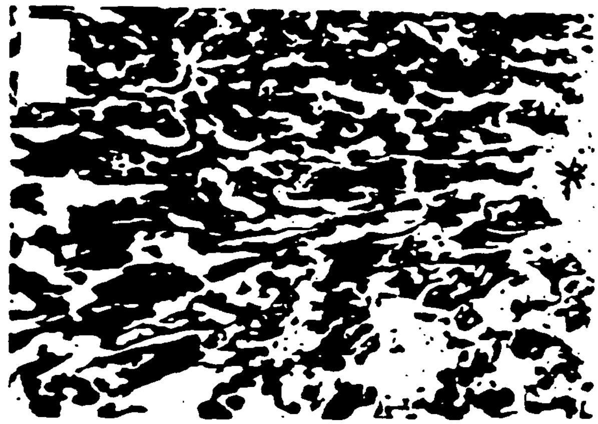


FIG.7G

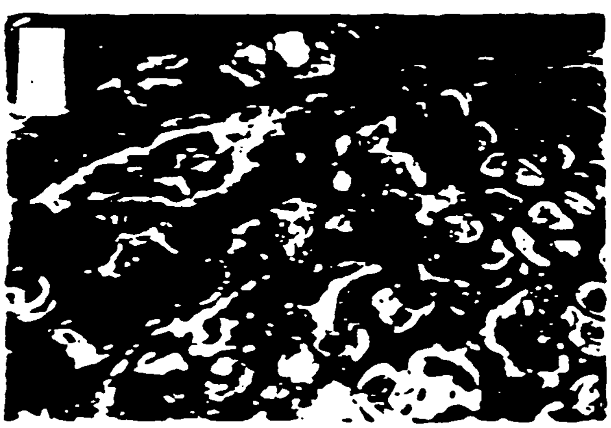


FIG.7H

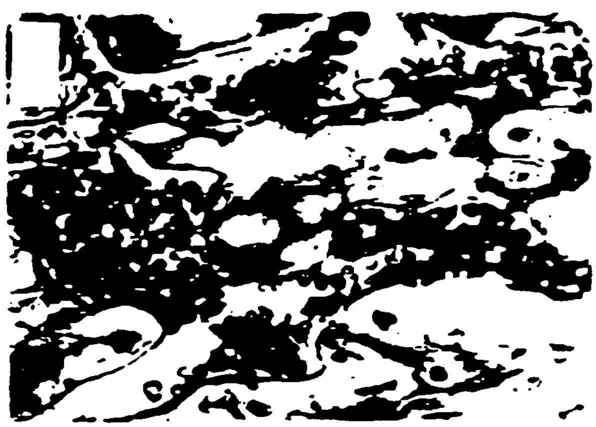


FIG.8A

FIG.8B

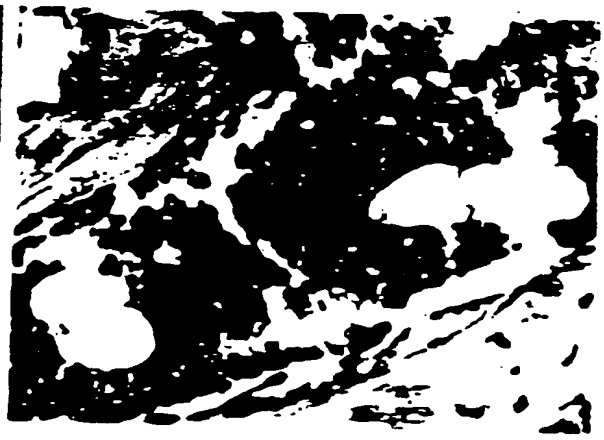


FIG.8C

FIG.8D

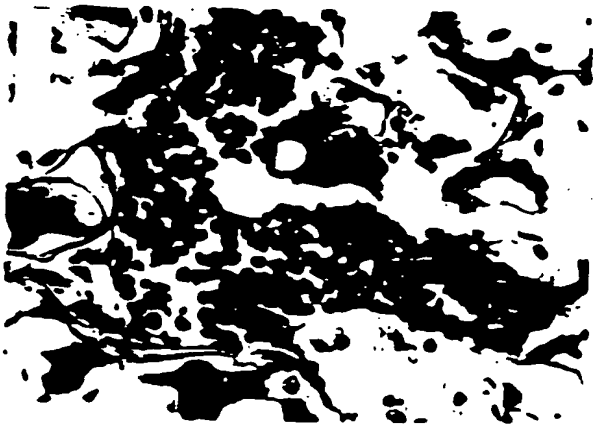


FIG.9A

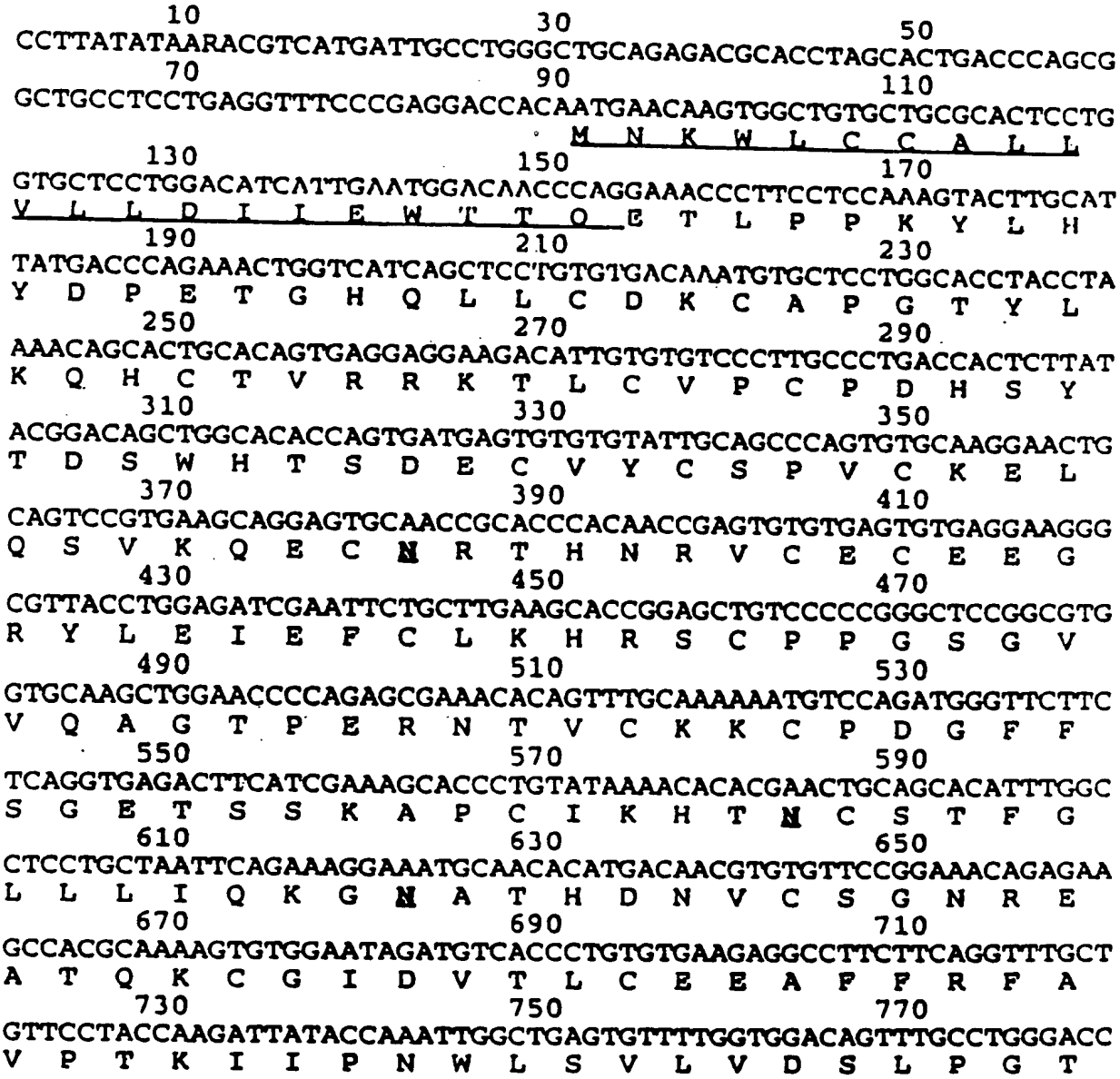

10
30
50
CCTTATATAARACGTCATGATTGCCTGGGCTGCAGAGACGCACCTAGCACTGACCCAGCG
70
90
110
GCTGCCTCCTGAGGTTTCCCGAGGACCACAATGAACAAGTGGCTGTGCTGCGCACTCCTG
M N K W L C C A L L
130
150
170
GTGCTCCTGGACATCATTGAATGGACAACCCAGGAAACCCTTCCTCCAAAGTACTTGCAT
V L L D I I E W T T Q E T L P P K Y L H
190
210
230
TATGACCCAGAAACTGGTCATCAGCTCCTGTGTGACAAATGTGCTCCTGGCACCTACCTA
Y D P E T G H Q L L C D K C A P G T Y L
250
270
290
AAACAGCACTGCACAGTGAGGAGGAAGACATTGTGTGTCCCTTGCCCTGACCACTCTTAT
K Q H C T V R R K T L C V P C P D H S Y
310
330
350
ACGGACAGCTGGCACACCAGTGATGAGTGTGTGTATTGCAGCCCAGTGTGCAAGGAACTG
T D S W H T S D E C V Y C S P V C K E L
370
390
410
CAGTCCGTGAAGCAGGAGTGCAACCGCACCCACAACCGAGTGTGTGAGTGTGAGGAAGGG
Q S V K Q E C N R T H N R V C E C E E G
430
450
470
CGTTACCTGGAGATCGAATTCTGCTTGAAGCACCGGAGCTGTCCCCCGGGCTCCGGCGTG
R Y L E I E F C L K H R S C P P G S G V
490
510
530
GTGCAAGCTGGAACCCCAGAGCGAAACACAGTTTGCAAAAAATGTCCAGATGGGTTCTTC
V Q A G T P E R N T V C K K C P D G F F
550
570
590
TCAGGTGAGACTTCATCGAAAGCACCCTGTATAAAACACACGAACTGCAGCACATTTGGC
S G E T S S K A P C I K H T N C S T F G
610
630
650
CTCCTGCTAATTCAGAAAGGAAATGCAACACATGACAACGTGTGTTCCGGAAACAGAGAA
L L L I Q K G N A T H D N V C S G N R E
670
690
710
GCCACGCAAAAGTGTGGAATAGATGTCACCCTGTGTGAAGAGGCCTTCTTCAGGTTTGCT
A T Q K C G I D V T L C E E A F F R F A
730
750
770
GTTCCTACCAAGATTATACCAAATTGGCTGAGTGTTTTGGTGGACAGTTTGCCTGGGACC
V P T K I I P N W L S V L V D S L P G T

FIG.9B

```
      790                                   810                                 830
AAAGTGAATGCCGAGAGTGTAGAGAGGATAAAACGGAGACACAGCTCACAAGAGCAAACC
 K  V  N  A  E  S  V  E  R  I  K  R  R  H  S  S  Q  E  Q  T
      850                                   870                                 890
TTCCAGCTGCTGAAGCTGTGGAAACATCAAAACAGAGACCAGGAAATGGTGAAGAAGATC
 F  Q  L  L  K  L  W  K  H  Q  N  R  D  Q  E  M  V  K  K  I
      910                                   930                                 950
ATCCAAGACATTGACCTCTGTGAAAGCAGCGTGCAGCGGCATCTCGGCCACTCGAACCTC
 I  Q  D  I  D  L  C  E  S  S  V  Q  R  H  L  G  H  S  N  L
      970                                   990                                 1010
ACCACAGAGCAGCTTCTTGCCTTGATGGAGAGCCTGCCTGGGAAGAAGATCAGCCCAGAA
 T  T  E  Q  L  L  A  L  M  E  S  L  P  G  K  K  I  S  P  E
      1030                                  1050                                1070
GAGATTGAGAGAACGAGAAAGACCTGCAAATCGAGCGAGCAGCTCCTGAAGCTACTCAGT
 E  I  E  R  T  R  K  T  C  K  S  S  E  Q  L  L  K  L  L  S
      1090                                  1110                                1130
TTATGGAGGATCAAAAATGGTGACCAAGACACCTTGAAGGGCCTGATGTATGCCCTCAAG
 L  W  R  I  K  N  G  D  Q  D  T  L  K  G  L  M  Y  A  L  K
      1150                                  1170                                1190
CACTTGAAAACATCCCACTTTCCCAAAACTGTCACCCACAGTCTGAGGAAGACCATGAGG
 H  L  K  T  S  H  F  P  K  T  V  T  H  S  L  R  K  T  M  R
      1210                                  1230                                1250
TTCCTGCACAGCTTCACAATGTACAGACTGTATCAGAAGCTCTTTTTAGAAATGATAGGG
 F  L  H  S  F  T  M  Y  R  L  Y  Q  K  L  F  L  E  M  I  G
      1270                                  1290                                1310
AATCAGGTTCAATCCGTGAAAATAAGCTGCTTATAACTAGGAATGGTCACTGGGCTGTTT
 N  Q  V  Q  S  V  K  I  S  C  L

CTTCA
```

FIG.9C

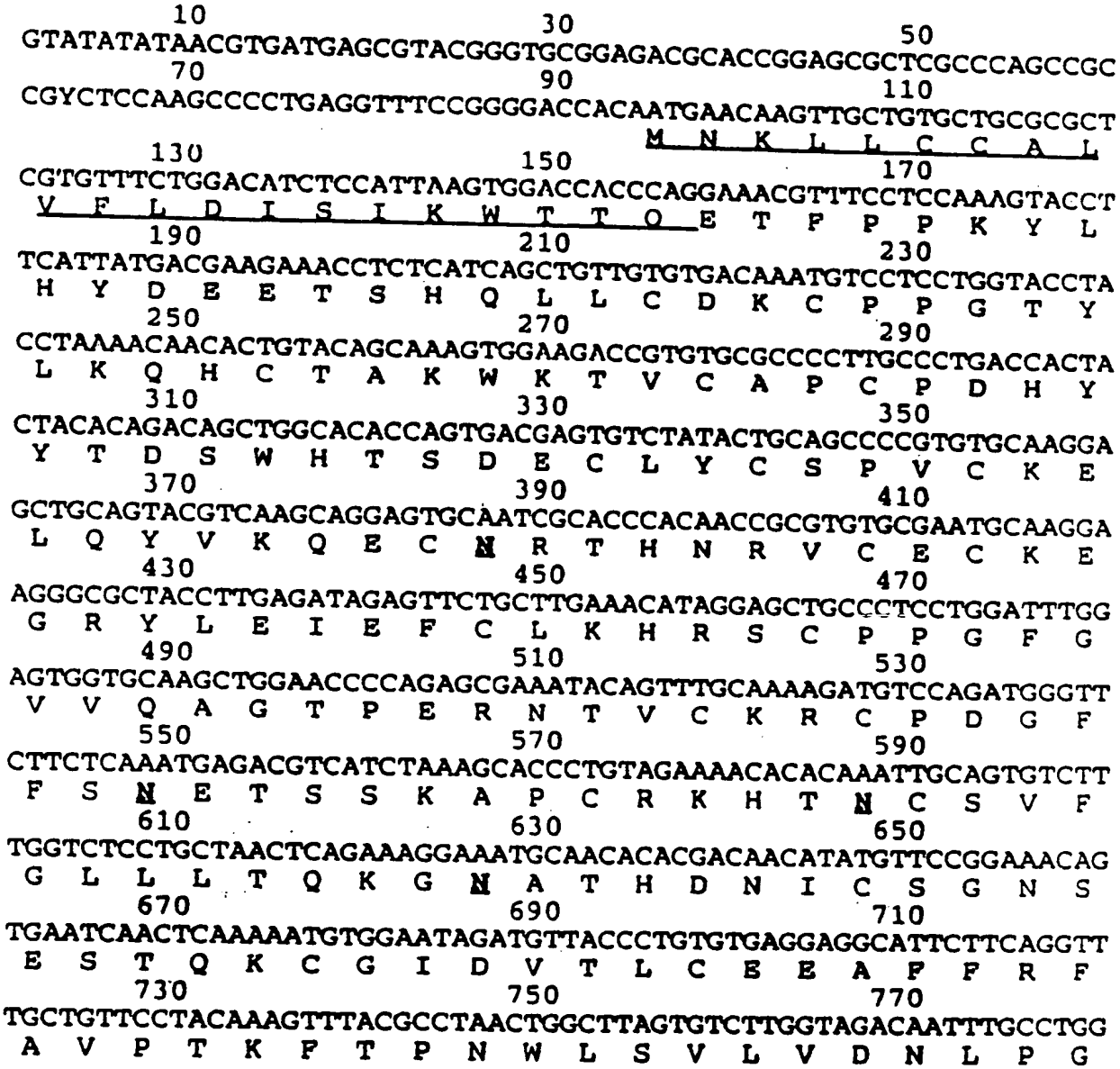


FIG.9D

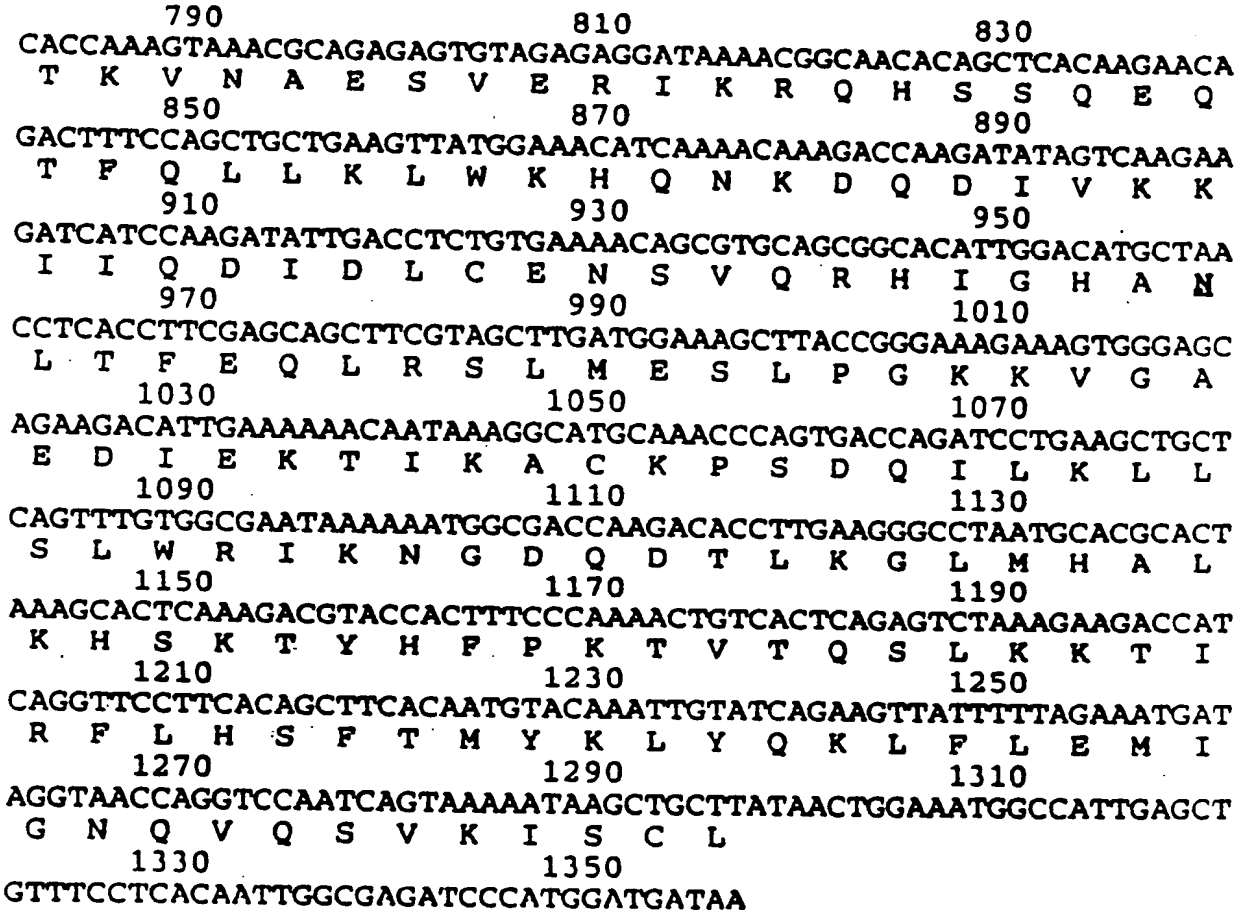


FIG.9E

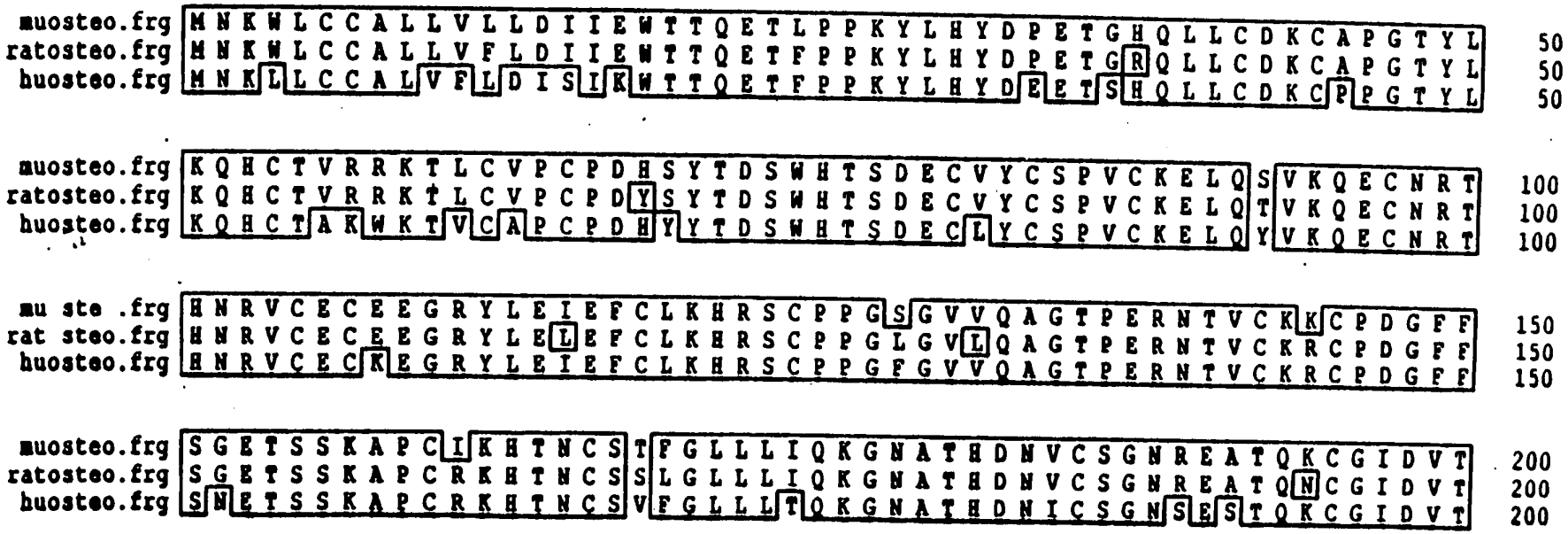


FIG.9F

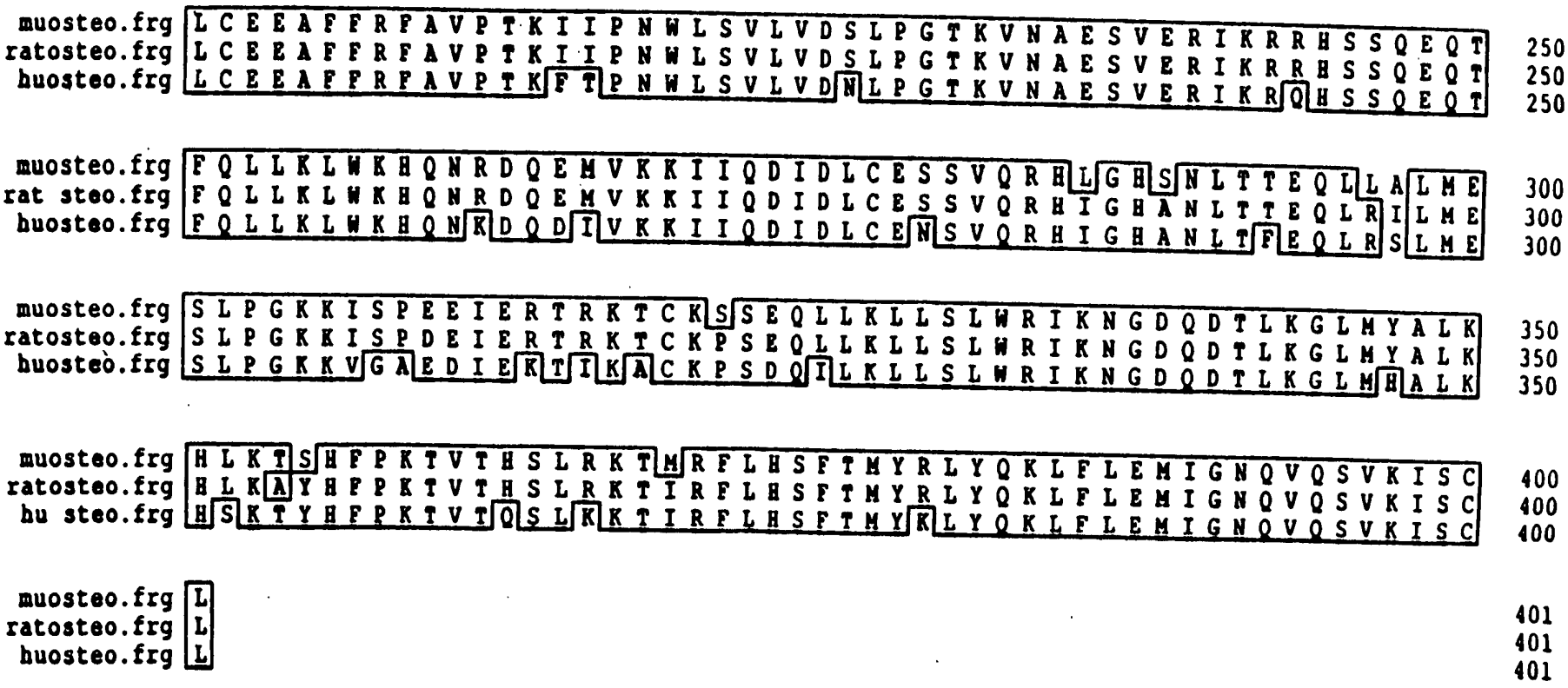


FIG.10

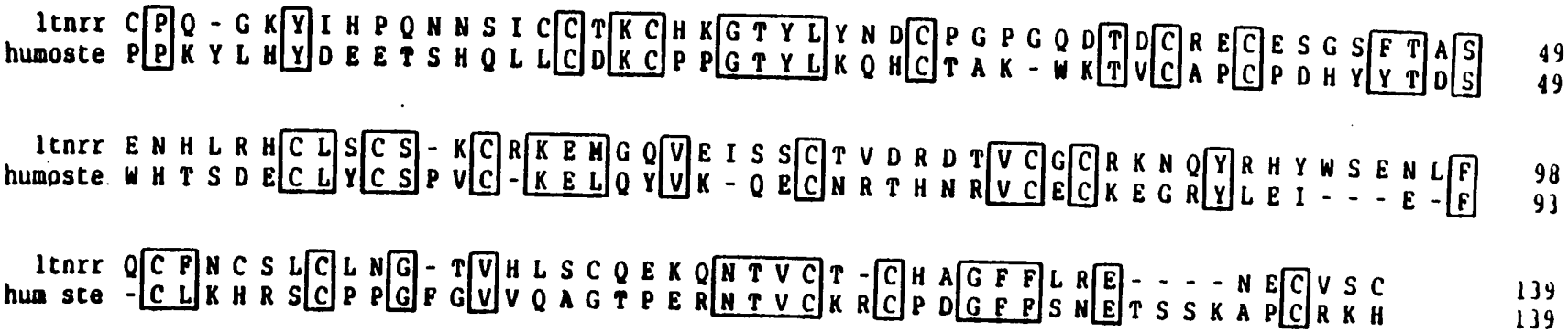


FIG. 11

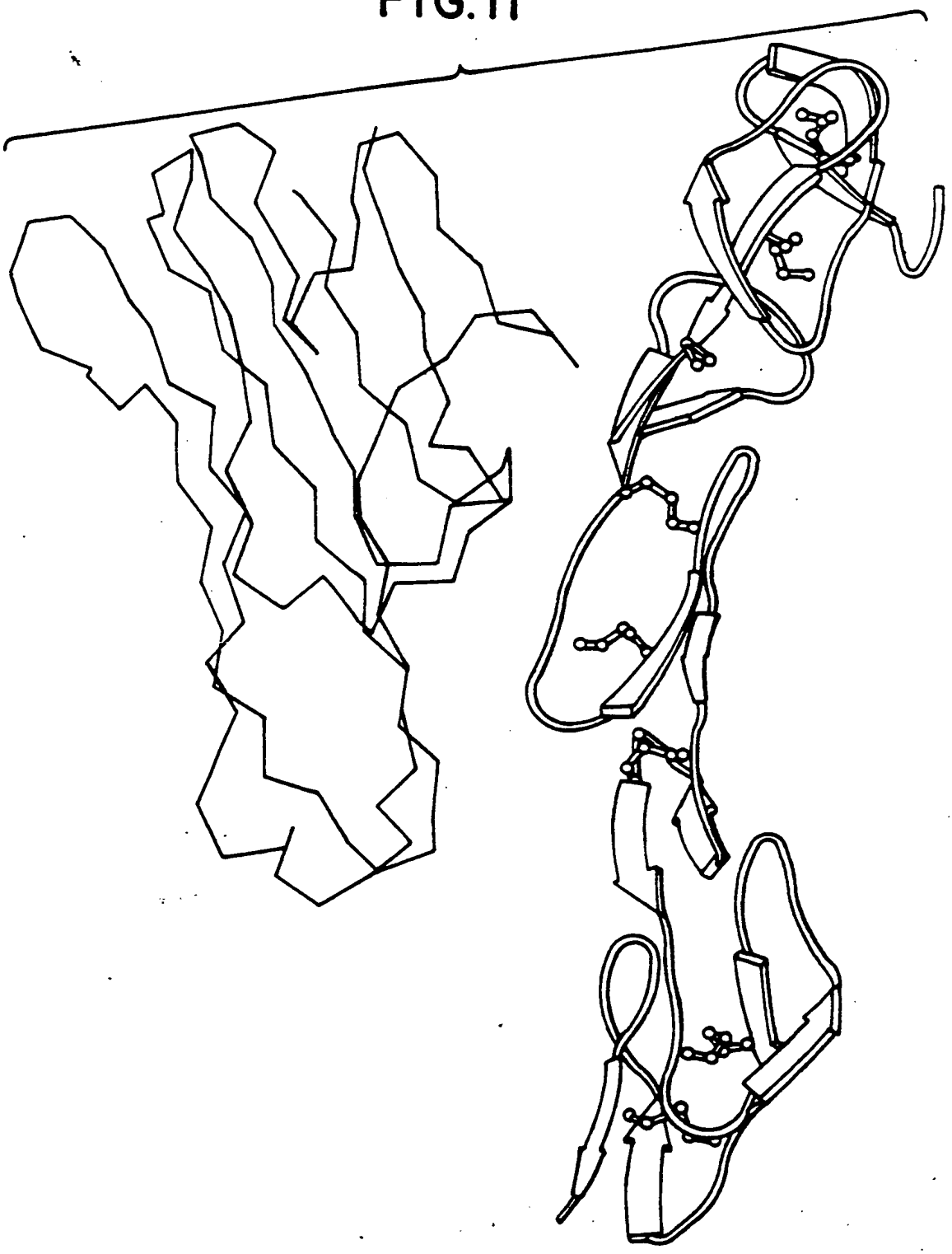


FIG.12A

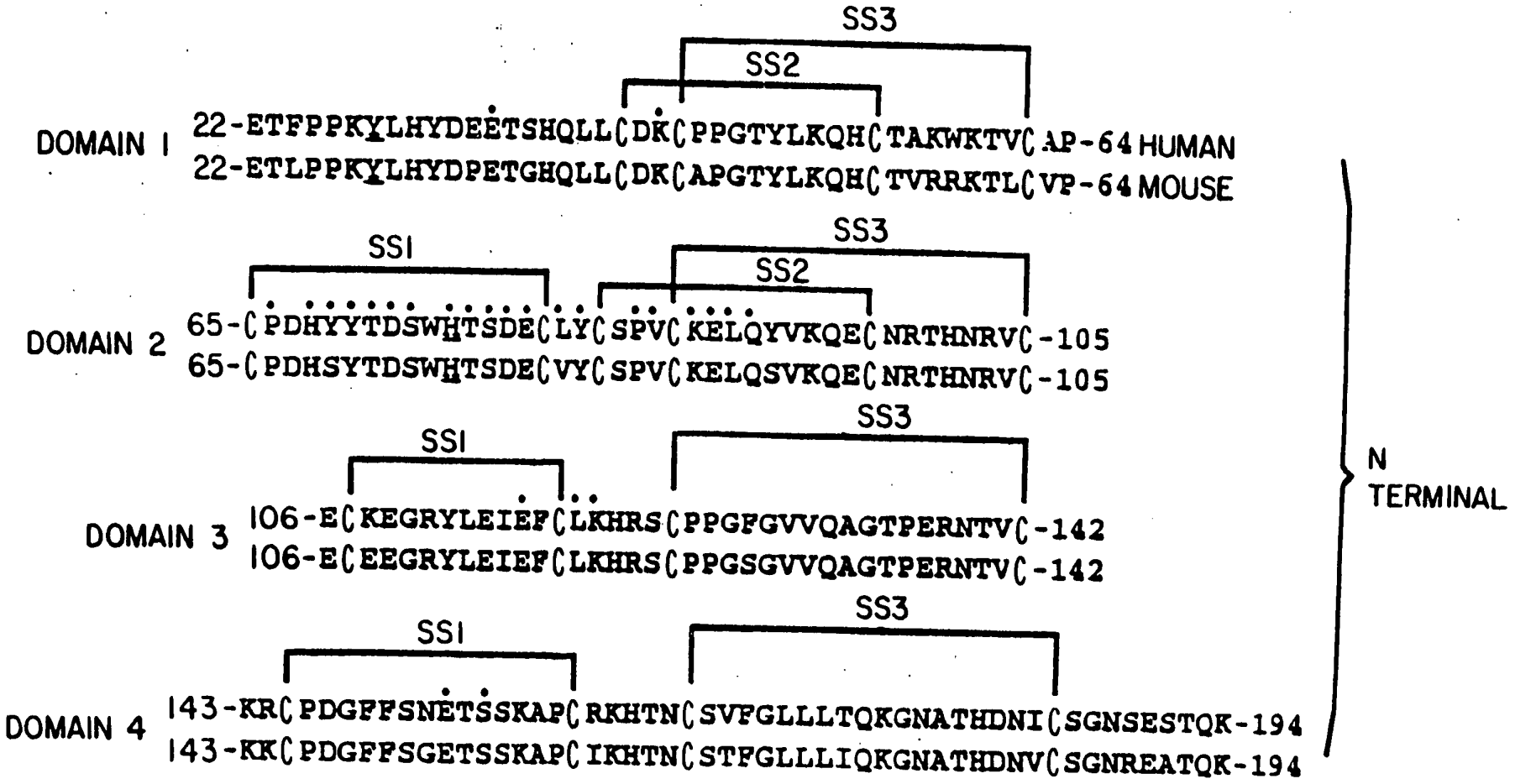


FIG.12B

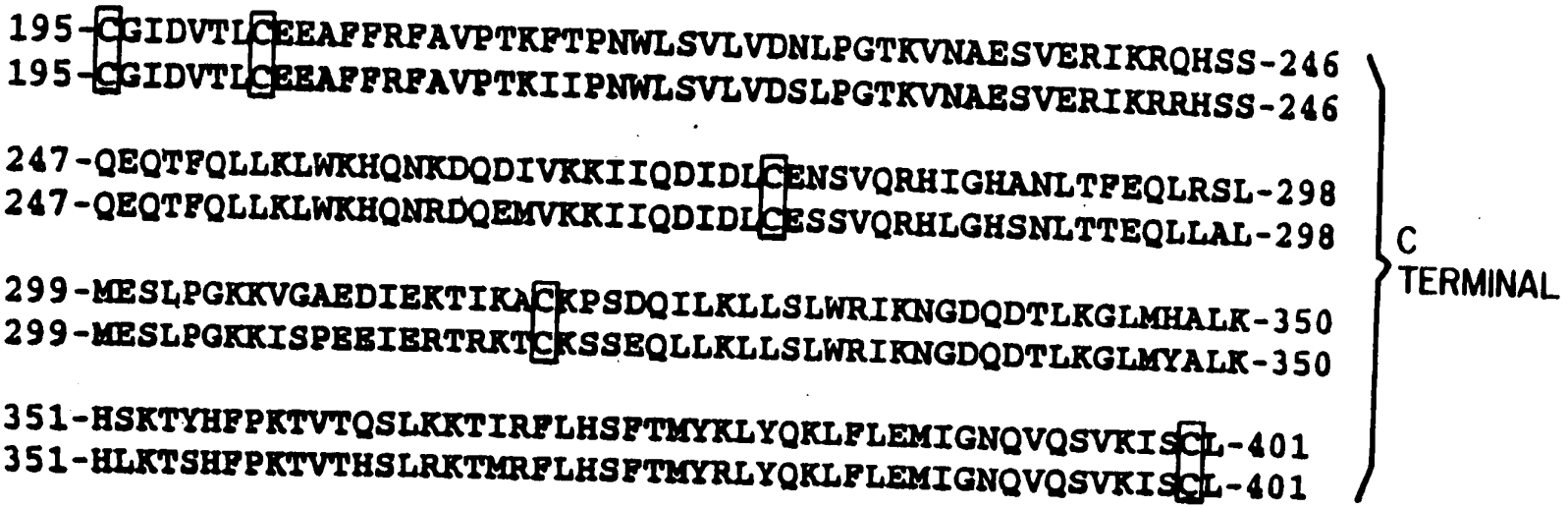

195-CGIDVTLCEEAFFRFAVPTKFTPNWLSVLVDNLPGTKVNAESVERIKRQHSS-246
195-CGIDVTLCEEAFFRFAVPTKIIPNWLSVLVDSLPGTKVNAESVERIKRRHSS-246
247-QEQTFQLLKLWKHQNKDQDIVKKIIQDIDLCENSVQRHIGHANLTFEQLRSL-298
247-QEQTFQLLKLWKHQNRDQEMVKKIIQDIDLCESSVQRHLGHSNLTTEQLLAL-298
299-MESLPGKKVGAEDIEKTIKACKPSDQILKLLSLWRIKNGDQDTLKGLMHALK-350
299-MESLPGKKISPEEIERTRKTCKSSEQLLKLLSLWRIKNGDQDTLKGLMYALK-350
351-HSKTYHFPKTVTQSLKKTIRFLHSFTMYKLYQKLFLEMIGNQVQSVKISCL-401
351-HLKTSHFPKTVTHSLRKTMRFLHSFTMYRLYQKLFLEMIGNQVQSVKISCL-401
C TERMINAL

FIG.13A

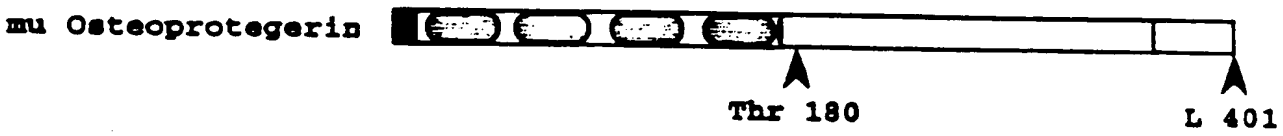


FIG.13B

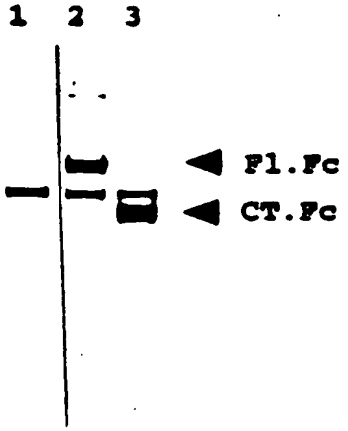


FIG.13C

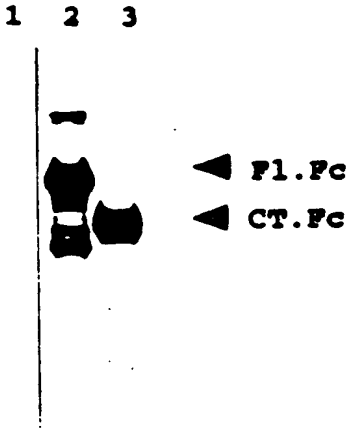


FIG.14A

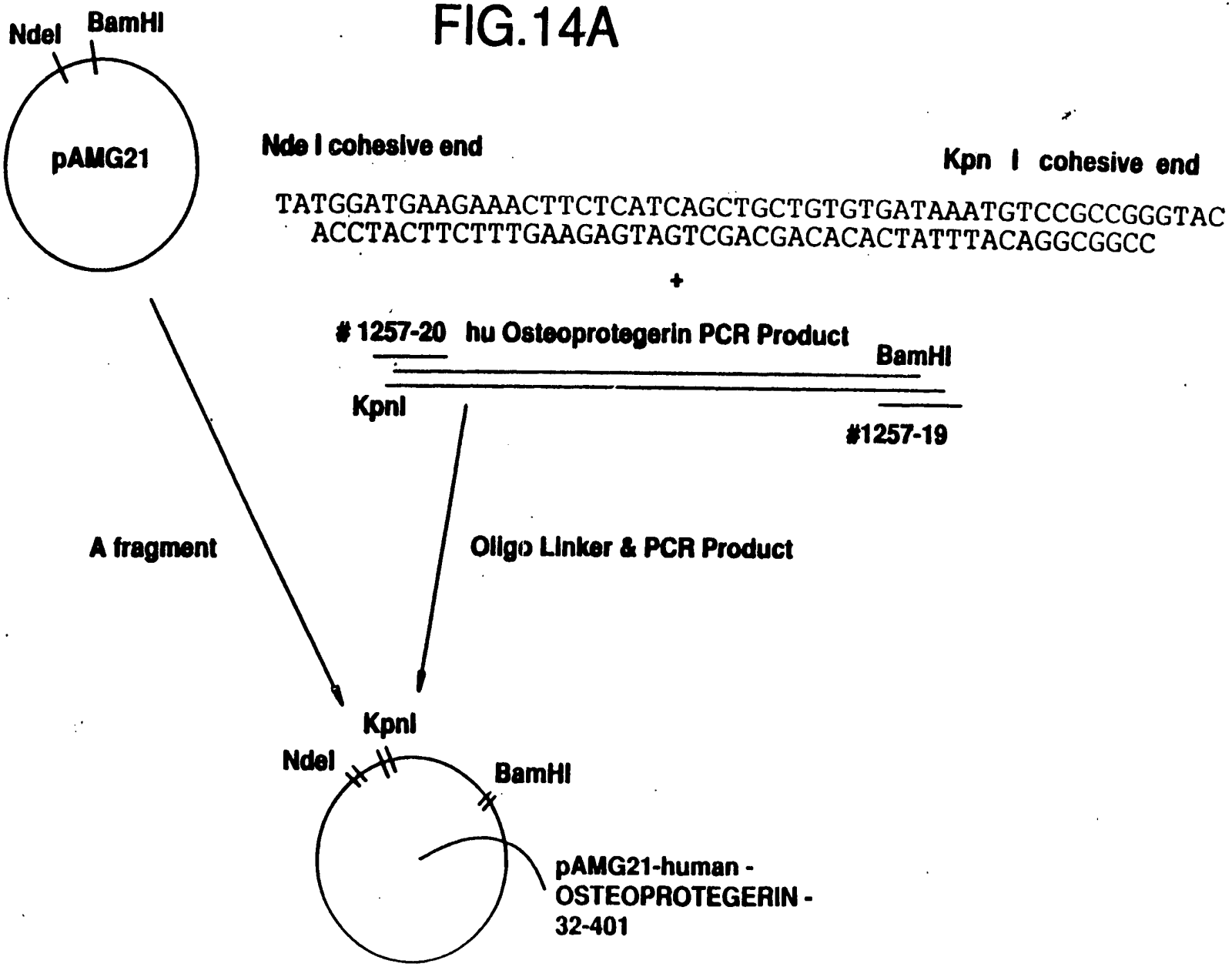


FIG.14B

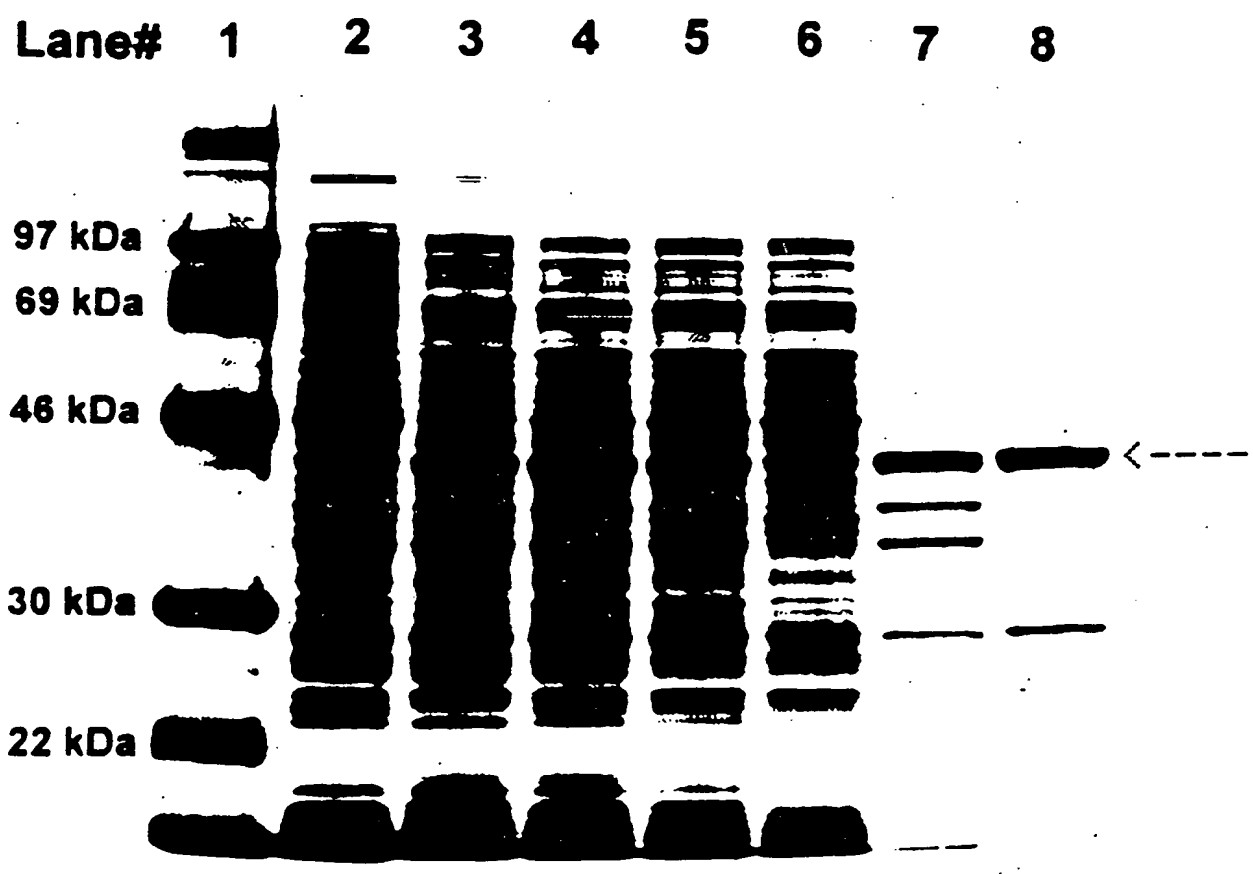


FIG.15

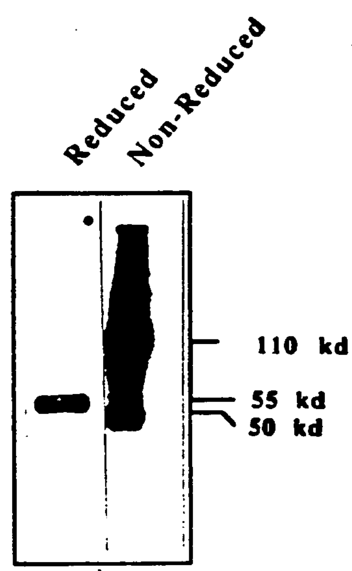


FIG. 16A

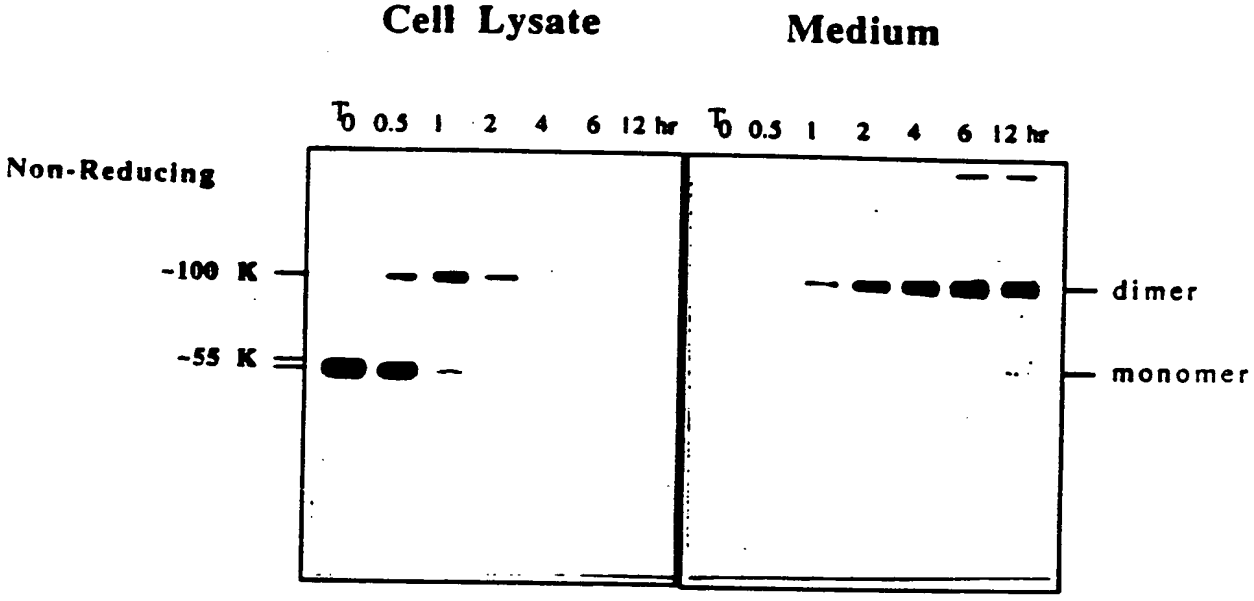


FIG. 16B

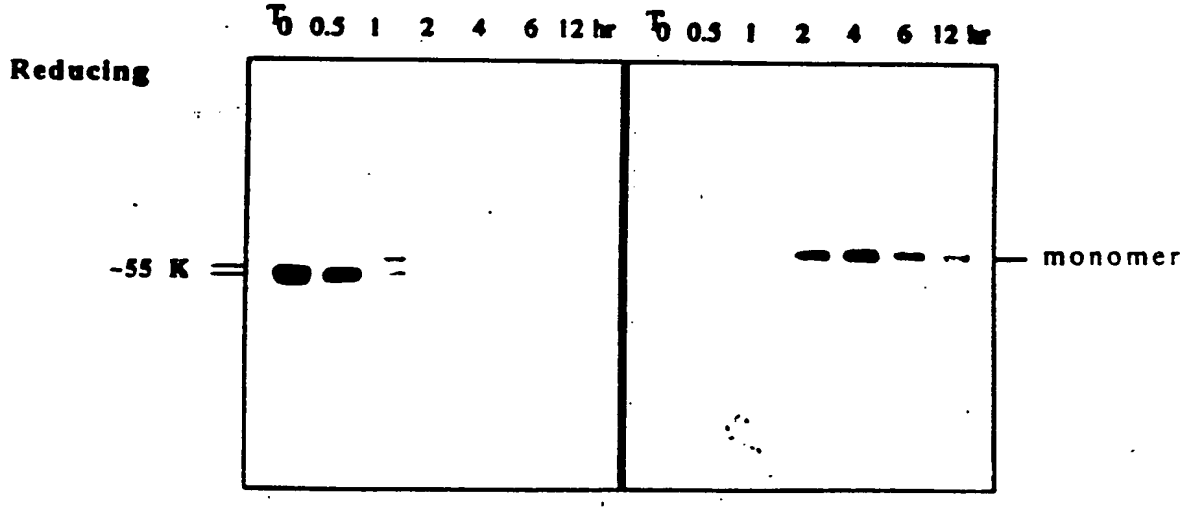


FIG. 17

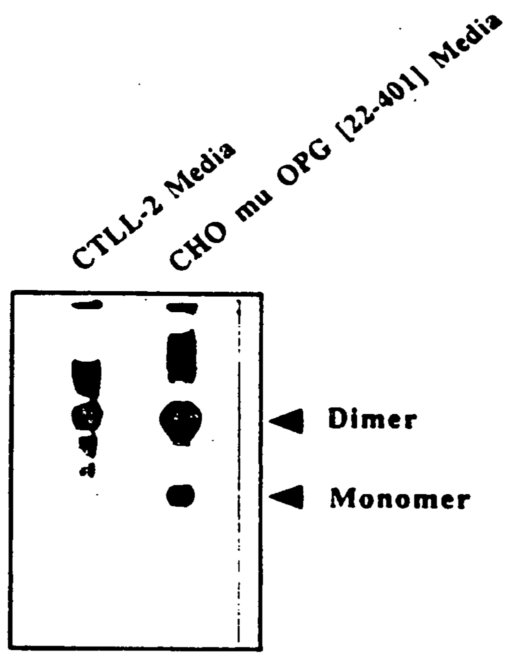


FIG.18

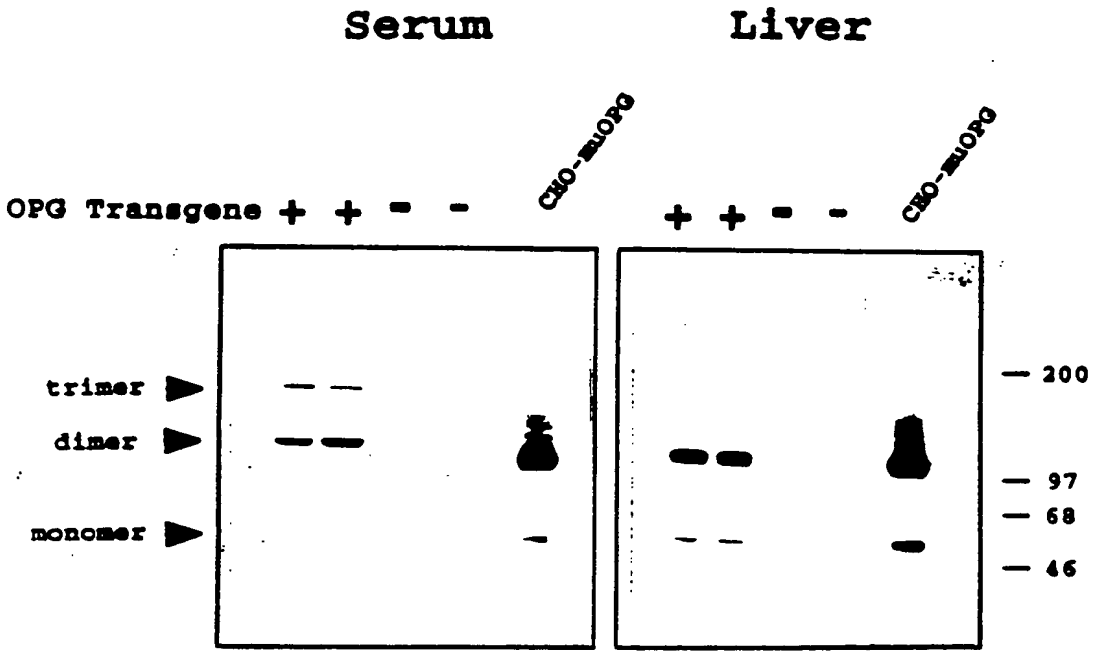

Serum
Liver
OPG Transgene + + - - CHO-muOPG
+ + - - CHO-muOPG
trimer
dimer
monomer
200
97
68
46

FIG.19A

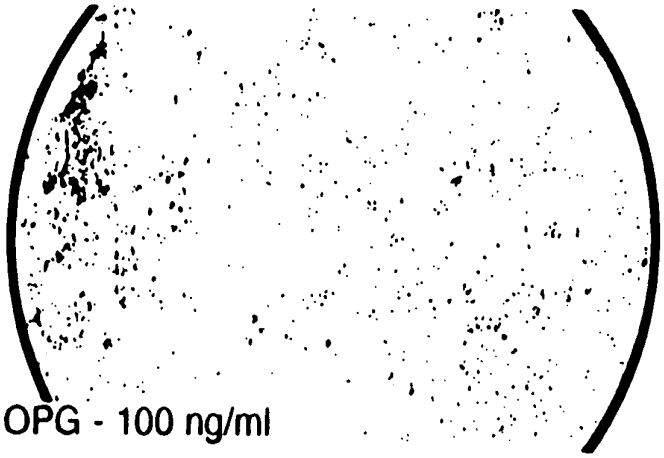


FIG.19B

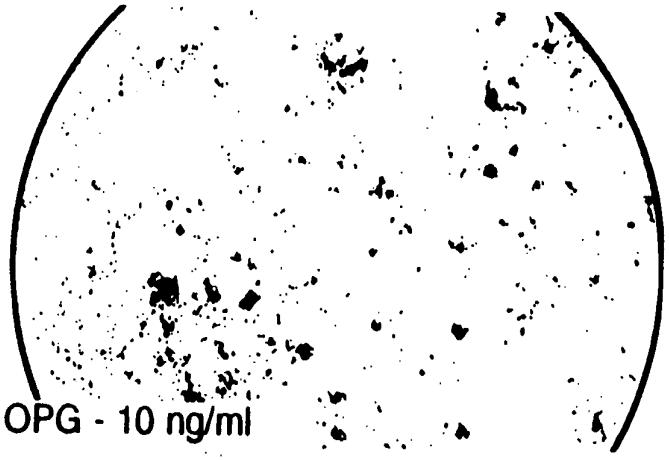


FIG.19C

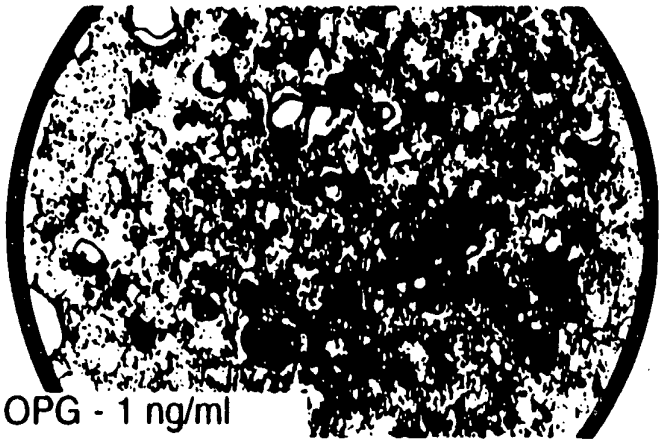


FIG.19D

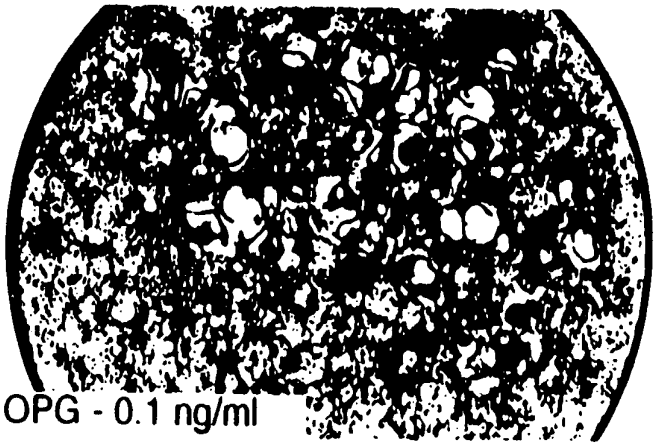
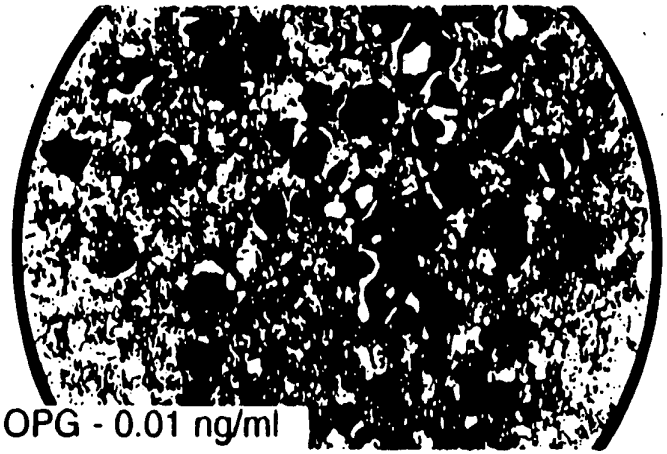
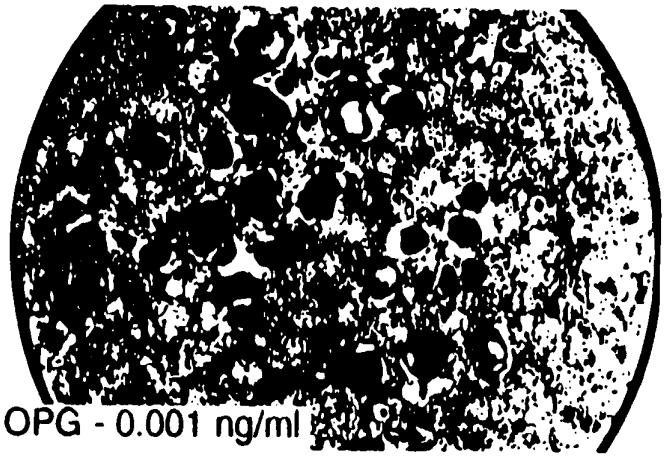


FIG.19E



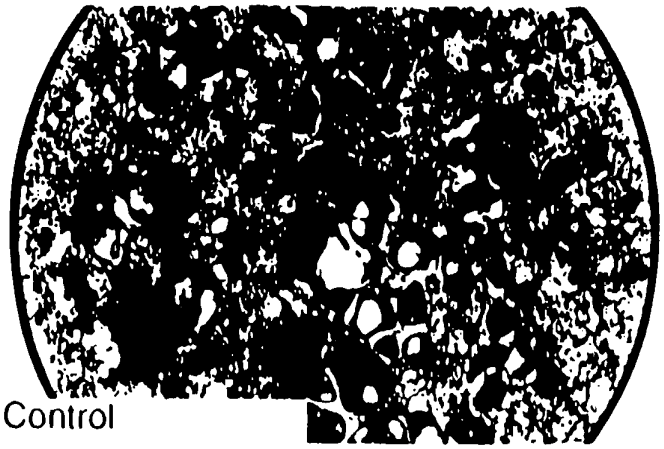
OPG - 0.01 ng/ml

FIG.19F



OPG - 0.001 ng/ml

FIG.19G



Control

FIG.20

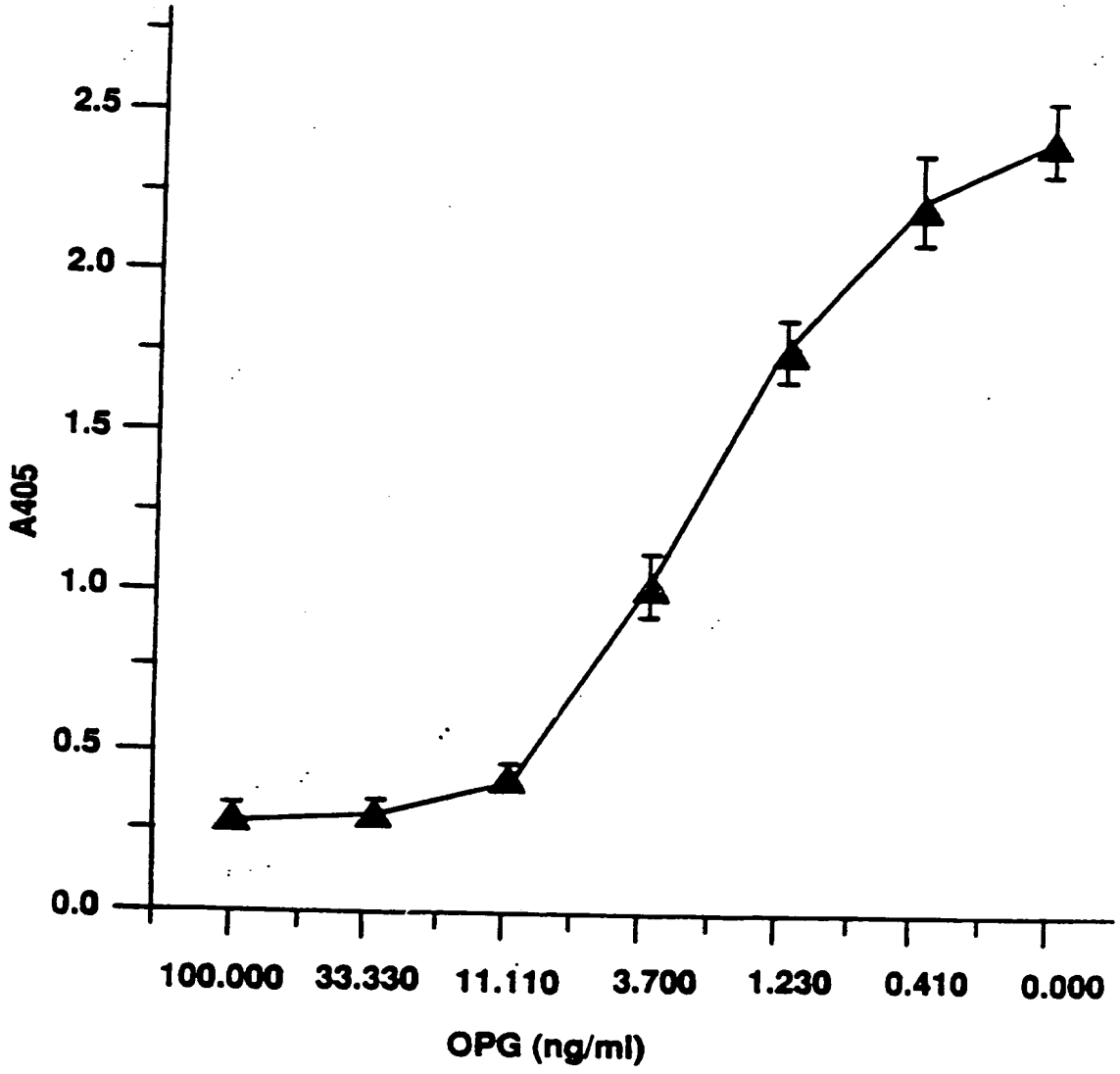
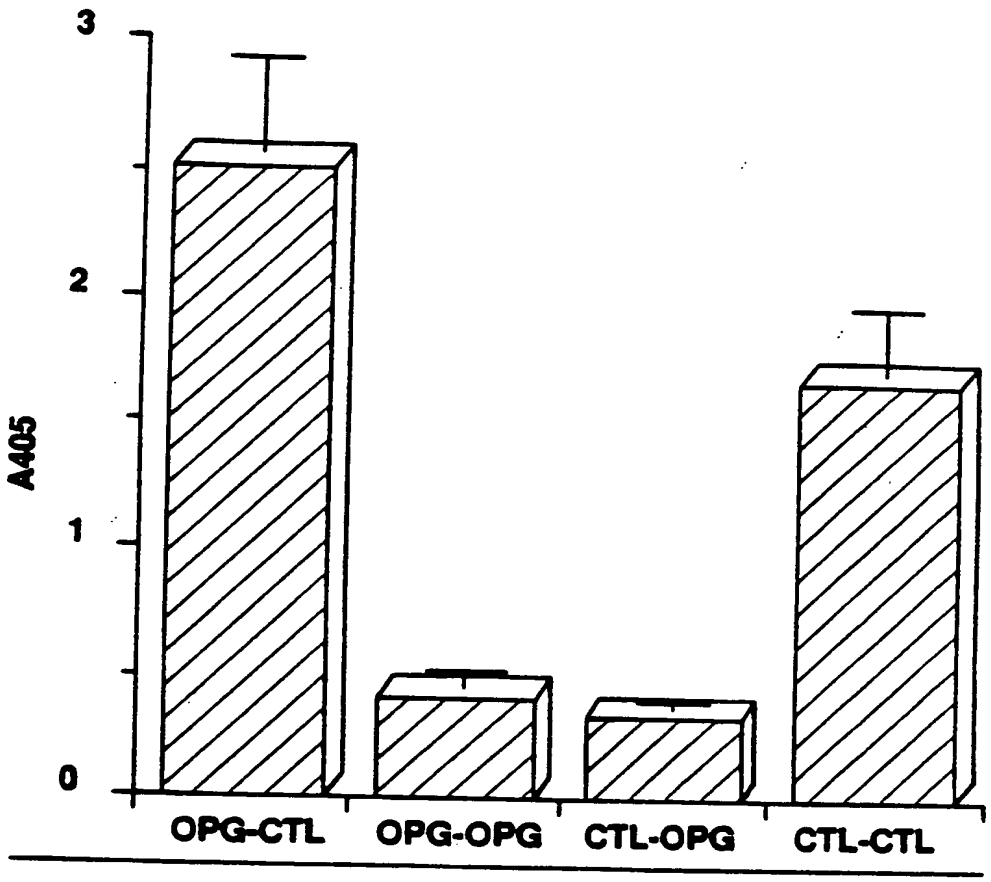

2.5
2.0
1.5
1.0
0.5
0.0
A405
100.000
33.330
11.110
3.700
1.230
0.410
0.000
OPG (ng/ml)

FIG.21



Legend

Growth	Intermediate	Terminal
Bone marrow cells	PGE2 + CSF-1	ST2 cells
CSF -1		1,25 (OH)2 D3
		Dexamethasone
4 days	2 days	8 - 10 days

Groups	OPG	OPG
CTL - CTL	– – –	– – –
OPG - CTL	100 ng/ml	– – –
OPG - OPG	– – –	100 ng/ml
OPG - OPG	100 ng/ml	100 ng/ml

FIG.22A

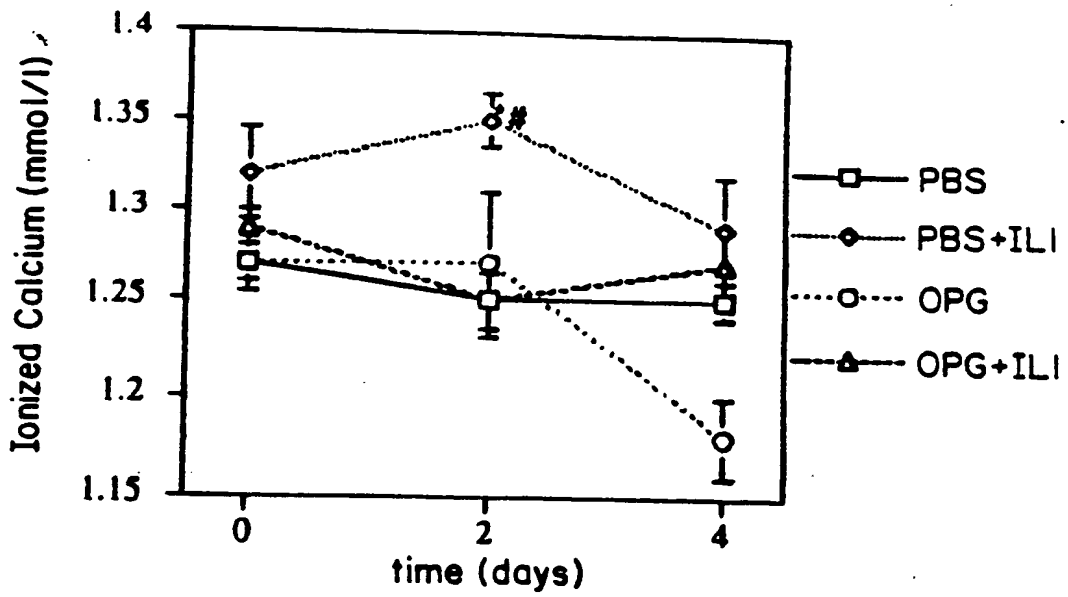
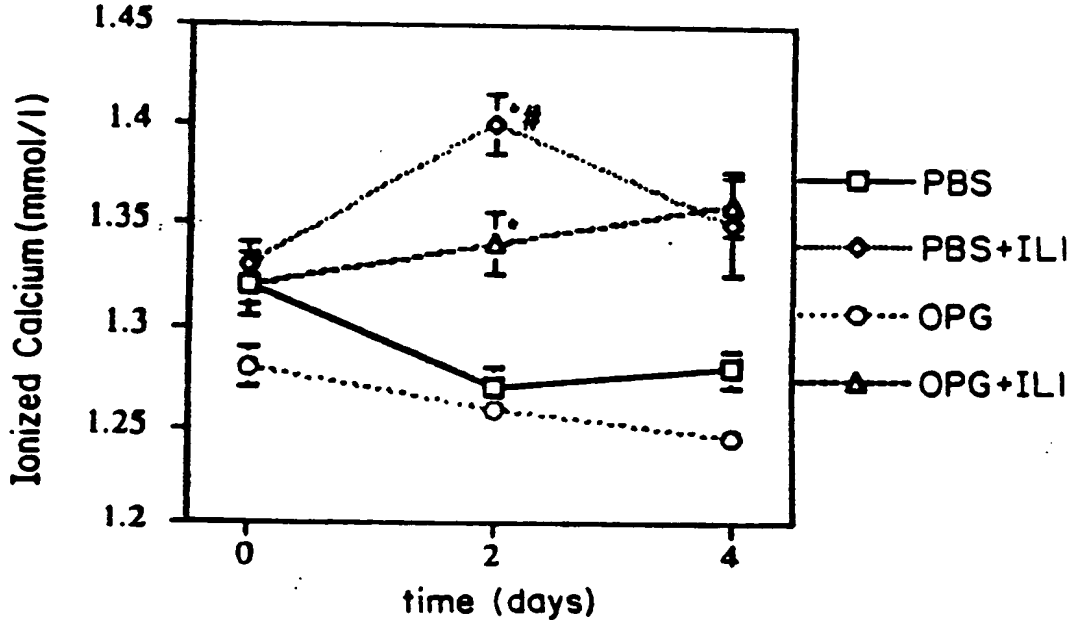


FIG.22B



* Different to PBS, $p < 0.05$
# Different to OPG + IL1, $p < 0.05$

FIG.23A

PBS/PBS

FIG.23B

FIG.23C

FIG.23D

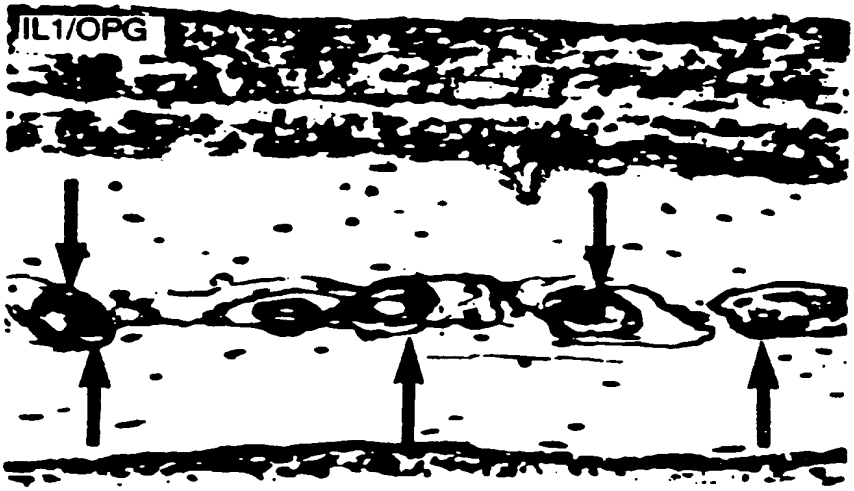
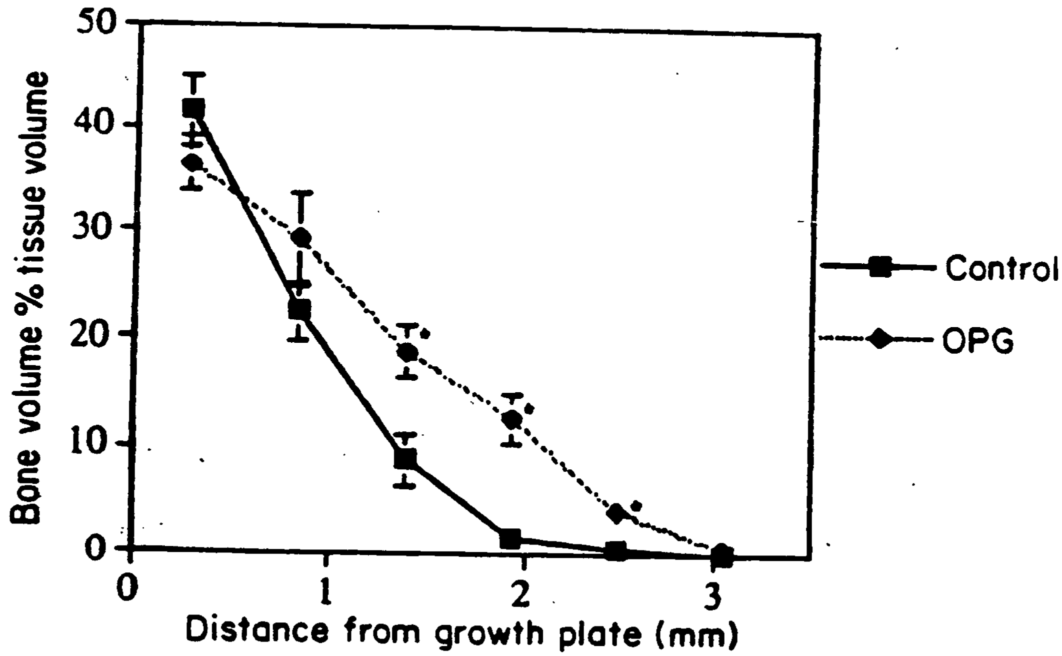


FIG.24A

FIG.24B

FIG.25

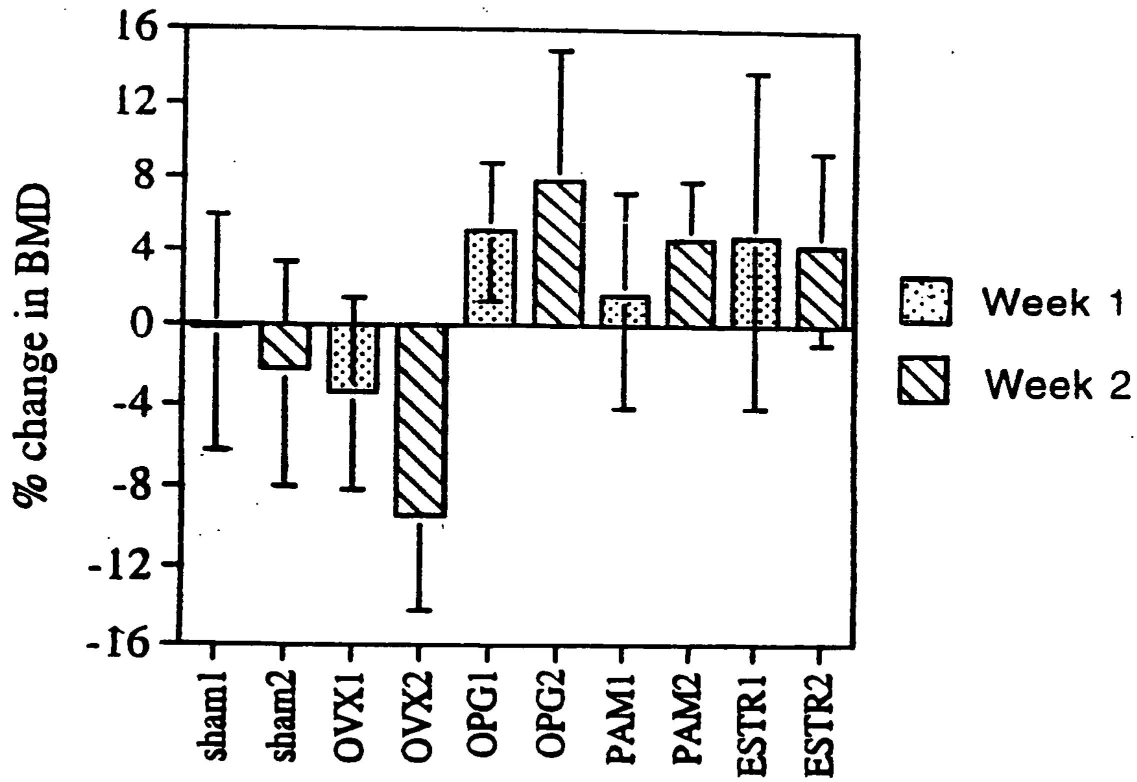


* Different to control $p < 0.01$

FIG.26A

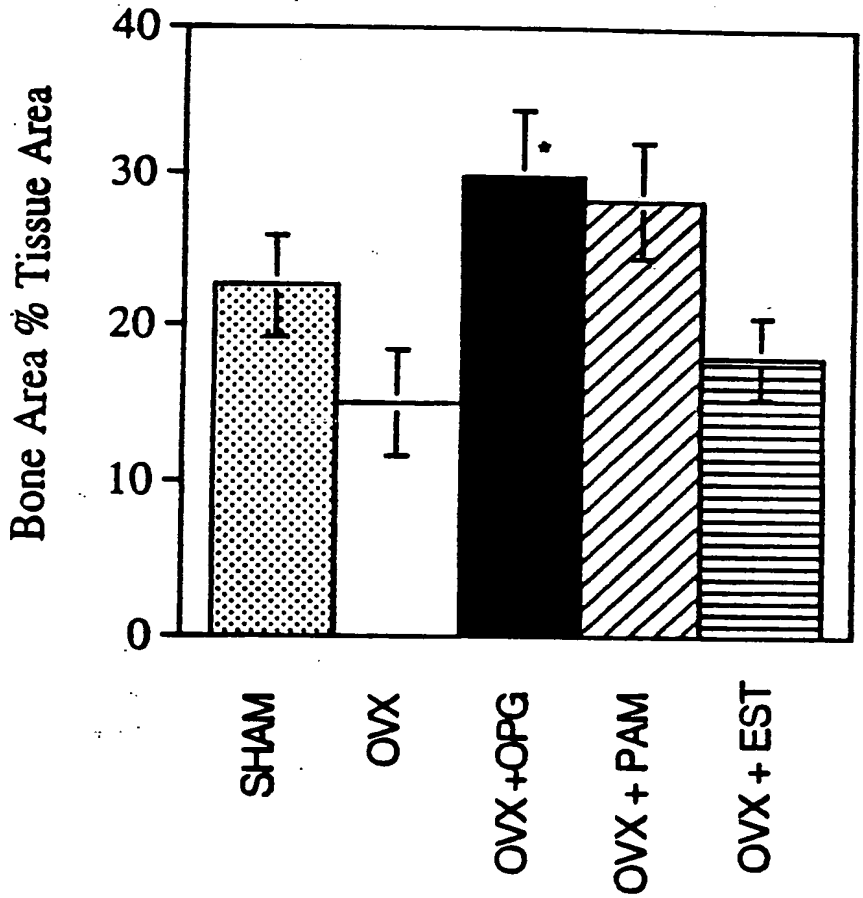
FIG.26.B

FIG.27



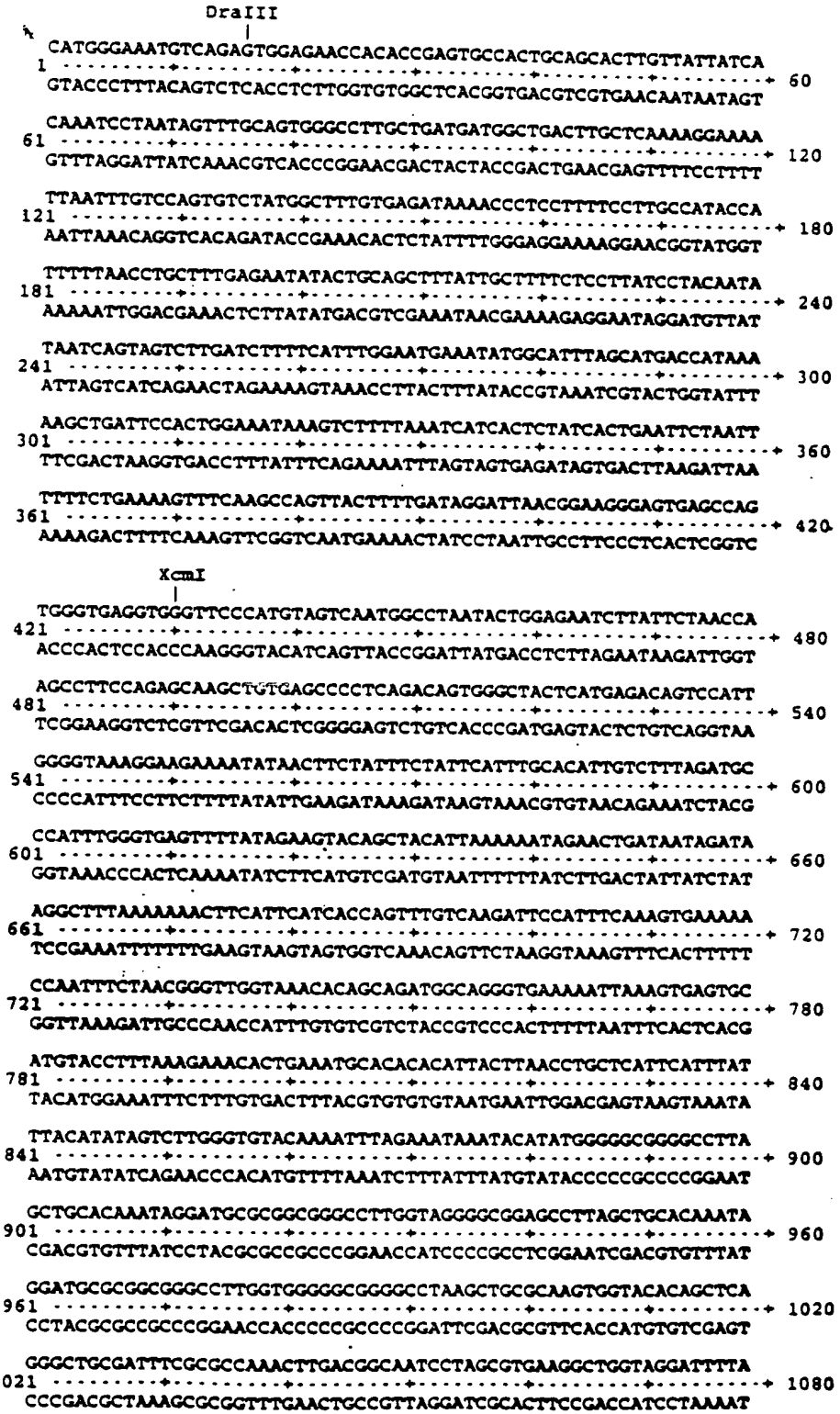
% change in BMD
16
12
8
4
0
-4
-8
-12
-16
sham1
sham2
OVX1
OVX2
OPG1
OPG2
PAM1
PAM2
ESTR1
ESTR2
Week 1
Week 2

FIG.28



* Different to OVX $p < 0.05$

Figure 29A


DraIII
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GTACCCTTTACAGTCTCACCTCTTGGTGTGGCTCACGGTGACGTCGTGAACAATAATAGT
CAAATCCTAATAGTTTGCAGTGGGCCTTGCTGATGATGGCTGACTTGCTCAAAAGGAAAA
GTTTAGGATTATCAAACGTCACCCGGAACGACTACTACCGACTGAACGAGTTTTCCTTTT
TTAATTTGTCCAGTGTCTATGGCTTTGTGAGATAAAACCCTCCTTTTCCTTGCCATACCA
AATTAAACAGGTCACAGATACCGAAACACTCTATTTTGGGAGGAAAAGGAACGGTATGGT
TTTTTAACCTGCTTTGAGAATATACTGCAGCTTTATTGCTTTTCTCCTTATCCTACAATA
AAAAATTGGACGAAACTCTTATATGACGTCGAAATAACGAAAAGAGGAATAGGATGTTAT
TAATCAGTAGTCTTGATCTTTTCATTTGGAATGAAATATGGCATTTAGCATGACCATAAA
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AAGCTGATTCCACTGGAAATAAAGTCTTTTAAATCATCACTCTATCACTGAATTCTAATT
TTCGACTAAGGTGACCTTTATTTCAGAAAATTTAGTAGTGAGATAGTGACTTAAGATTAA
TTTTCTGAAAAGTTTCAAGCCAGTTACTTTTGATAGGATTAACGGAAGGGAGTGAGCCAG
AAAAGACTTTTCAAAGTTCGGTCAATGAAAACTATCCTAATTGCCTTCCCTCACTCGGTC
XcmI
TGGGTGAGGTGGGTTCCCATGTAGTCAATGGCCTAATACTGGAGAATCTTATTCTAACCA
ACCCACTCCACCCAAGGGTACATCAGTTACCGGATTATGACCTCTTAGAATAAGATTGGT
AGCCTTCCAGAGCAAGCTGTGAGCCCCTCAGACAGTGGGCTACTCATGAGACAGTCCATT
TCGGAAGGTCTCGTTCGACACTCGGGGAGTCTGTCACCCGATGAGTACTCTGTCAGGTAA
GGGGTAAAGGAAGAAAATATAACTTCTATTTCTATTCATTTGCACATTGTCTTTAGATGC
CCCCATTTCCTTCTTTTATATTGAAGATAAAGATAAGTAAACGTGTAACAGAAATCTACG
CCATTTGGGTGAGTTTTATAGAAGTACAGCTACATTAAAAAATAGAACTGATAATAGATA
GGTAAACCCACTCAAAATATCTTCATGTCGATGTAATTTTTTATCTTGACTATTATCTAT
AGGCTTTAAAAAAACTTCATTCATCACCAGTTTGTCAAGATTCCATTTCAAAGTGAAAAA
TCCGAAATTTTTTTGAAGTAAGTAGTGGTCAAACAGTTCTAAGGTAAAGTTTCACTTTTT
CCAATTTCTAACGGGTTGGTAAACACAGCAGATGGCAGGGTGAAAAATTAAAGTGAGTGC
GGTTAAAGATTGCCCAACCATTTGTGTCGTCTACCGTCCCACTTTTTAATTTCACTCACG
ATGTACCTTTAAAGAAACACTGAAATGCACACACATTACTTAACCTGCTCATTCATTTAT
TACATGGAAATTTCTTTGTGACTTTACGTGTGTGTAATGAATTGGACGAGTAAGTAAATA
TTACATATAGTCTTGGGTGTACAAAATTTAGAAATAAATACATATGGGGGCGGGGCCTTA
AATGTATATCAGAACCCACATGTTTTAAATCTTTATTTATGTATACCCCCGCCCCGGAAT
GCTGCACAAATAGGATGCGCGGCGGGCCTTGGTAGGGGCGGAGCCTTAGCTGCACAAATA
CGACGTGTTTATCCTACGCGCCGCCCGGAACCATCCCCGCCTCGGAATCGACGTGTTTAT
GGATGCGCGGCGGGCCTTGGTGGGGGCGGGGCCTAAGCTGCGCAAGTGGTACACAGCTCA
CCTACGCGCCGCCCGGAACCACCCCCGCCCCGGATTCGACGCGTTCACCATGTGTCGAGT
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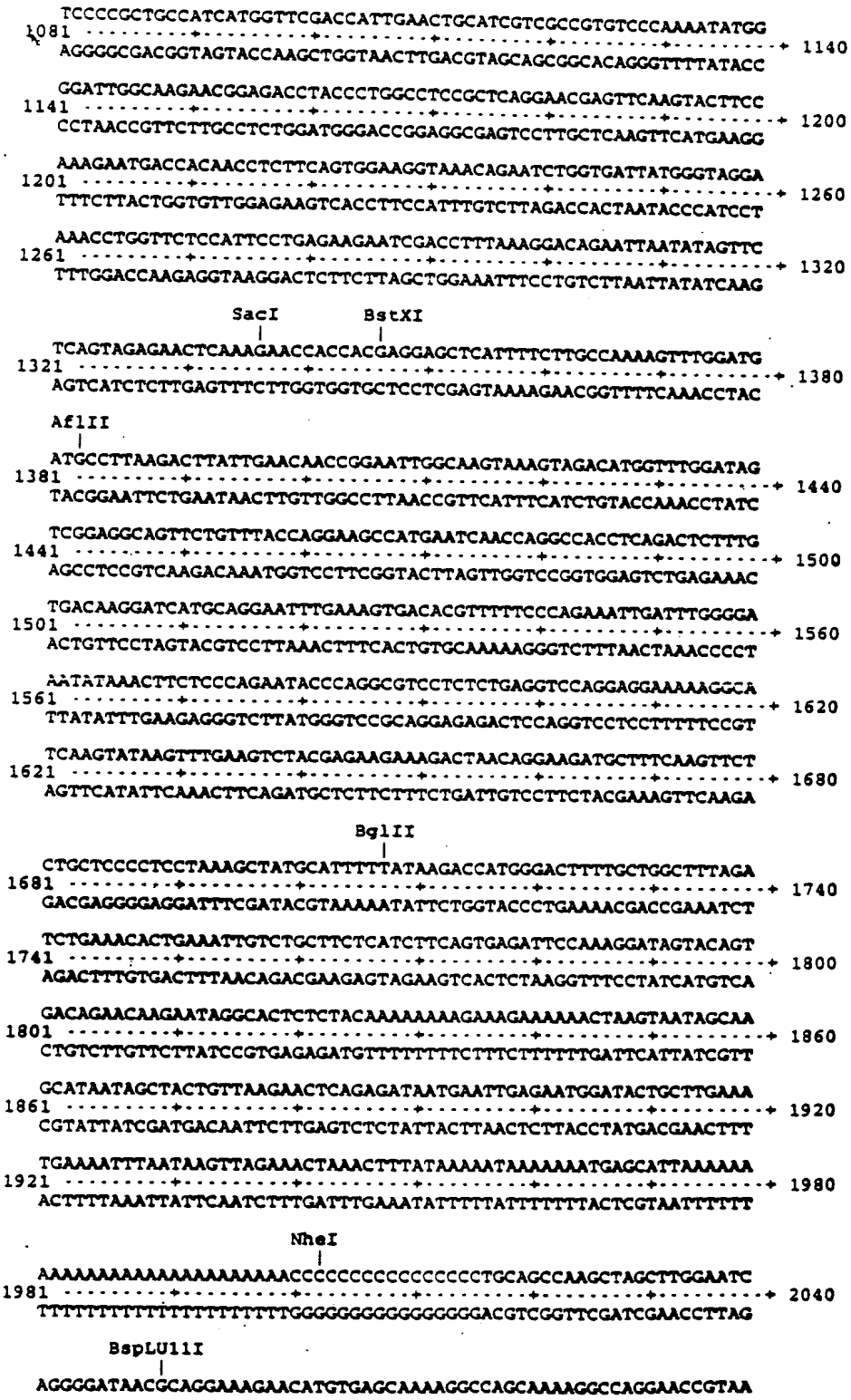
CCCGACGCTAAAGCGCGGTTTGAACTGCCGTTAGGATCGCACTTCCGACCATCCTAAAAT

Figure 29B


TCCCCGCTGCCATCATGGTTCGACCATTGAACTGCATCGTCGCCGTGTCCCAAAATATGG
1081
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1140
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1141
CCTAACCGTTCTTGCCTCTGGATGGGACCGGAGGCGAGTCCTTGCTCAAGTTCATGAAGG
1200
AAAGAATGACCACAACCTCTTCAGTGGAAGGTAAACAGAATCTGGTGATTATGGGTAGGA
1201
TTTCTTACTGGTGTTGGAGAAGTCACCTTCCATTTGTCTTAGACCACTAATACCCATCCT
1260
AAACCTGGTTCTCCATTCCTGAGAAGAATCGACCTTTAAAGGACAGAATTAATATAGTTC
1261
TTTGGACCAAGAGGTAAGGACTCTTCTTAGCTGGAAATTTCCTGTCTTAATTATATCAAG
1320
SacI
BstXI
TCAGTAGAGAACTCAAAGAACCACCACGAGGAGCTCATTTTCTTGCCAAAAGTTTGGATG
1321
AGTCATCTCTTGAGTTTCTTGGTGGTGCTCCTCGAGTAAAAGAACGGTTTTCAAACCTAC
1380
AflII
ATGCCTTAAGACTTATTGAACAACCGGAATTGGCAAGTAAAGTAGACATGGTTTGGATAG
1381
TACGGAATTCTGAATAACTTGTTGGCCTTAACCGTTCATTTCATCTGTACCAAACCTATC
1440
TCGGAGGCAGTTCTGTTTACCAGGAAGCCATGAATCAACCAGGCCACCTCAGACTCTTTG
1441
AGCCTCCGTCAAGACAAATGGTCCTTCGGTACTTAGTTGGTCCGGTGGAGTCTGAGAAAC
1500
TGACAAGGATCATGCAGGAATTTGAAAGTGACACGTTTTTCCCAGAAATTGATTTGGGGA
1501
ACTGTTCCTAGTACGTCCTTAAACTTTCACTGTGCAAAAAGGGTCTTTAACTAAACCCCT
1560
AATATAAACTTCTCCCAGAATACCCAGGCGTCCTCTCTGAGGTCCAGGAGGAAAAAGGCA
1561
TTATATTTGAAGAGGGTCTTATGGGTCCGCAGGAGAGACTCCAGGTCCTCCTTTTTCCGT
1620
TCAAGTATAAGTTTGAAGTCTACGAGAAGAAAGACTAACAGGAAGATGCTTTCAAGTTCT
1621
AGTTCATATTCAAACTTCAGATGCTCTTCTTTCTGATTGTCCTTCTACGAAAGTTCAAGA
1680
BglII
CTGCTCCCCTCCTAAAGCTATGCATTTTTATAAGACCATGGGACTTTTGCTGGCTTTAGA
1681
GACGAGGGGGAGGATTTCGATACGTAAAAATATTCTGGTACCCTGAAAACGACCGAAATCT
1740
TCTGAAACACTGAAATTGTCTGCTTCTCATCTTCAGTGAGATTCCAAAGGATAGTACAGT
1741
AGACTTTGTGACTTTAACAGACGAAGAGTAGAAGTCACTCTAAGGTTTCCTATCATGTCA
1800
GACAGAACAAGAATAGGCACTCTCTACAAAAAAAAAGAAAGAAAAAACTAAGTAATAGCAA
1801
CTGTCTTGTTCTTATCCGTGAGAGATGTTTTTTTTCTTTCTTTTTTGATTCATTATCGTT
1860
GCATAATAGCTACTGTTAAGAACTCAGAGATAATGAATTGAGAATGGATACTGCTTGAAA
1861
CGTATTATCGATGACAATTCTTGAGTCTCTATTACTTAACTCTTACCTATGACGAACTTT
1920
TGAAAATTTAATAAGTTAGAAACTAAACTTTATAAAAATAAAAAAATGAGCATTAAAAAA
1921
ACTTTTAAATTATTCAATCTTTGATTTGAAATATTTTTATTTTTTTACTCGTAATTTTTT
1980
NheI
AAAAAAAAAAAAAAAAAAAAAACCCCCCCCCCCCCCCCTGCAGCCAAGCTAGCTTGGAATC
1981
TTTTTTTTTTTTTTTTTTTTTGGGGGGGGGGGGGGGGACGTCGGTTCGATCGAACCTTAG
2040
BspLU11I
AGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAA

Figure 29C

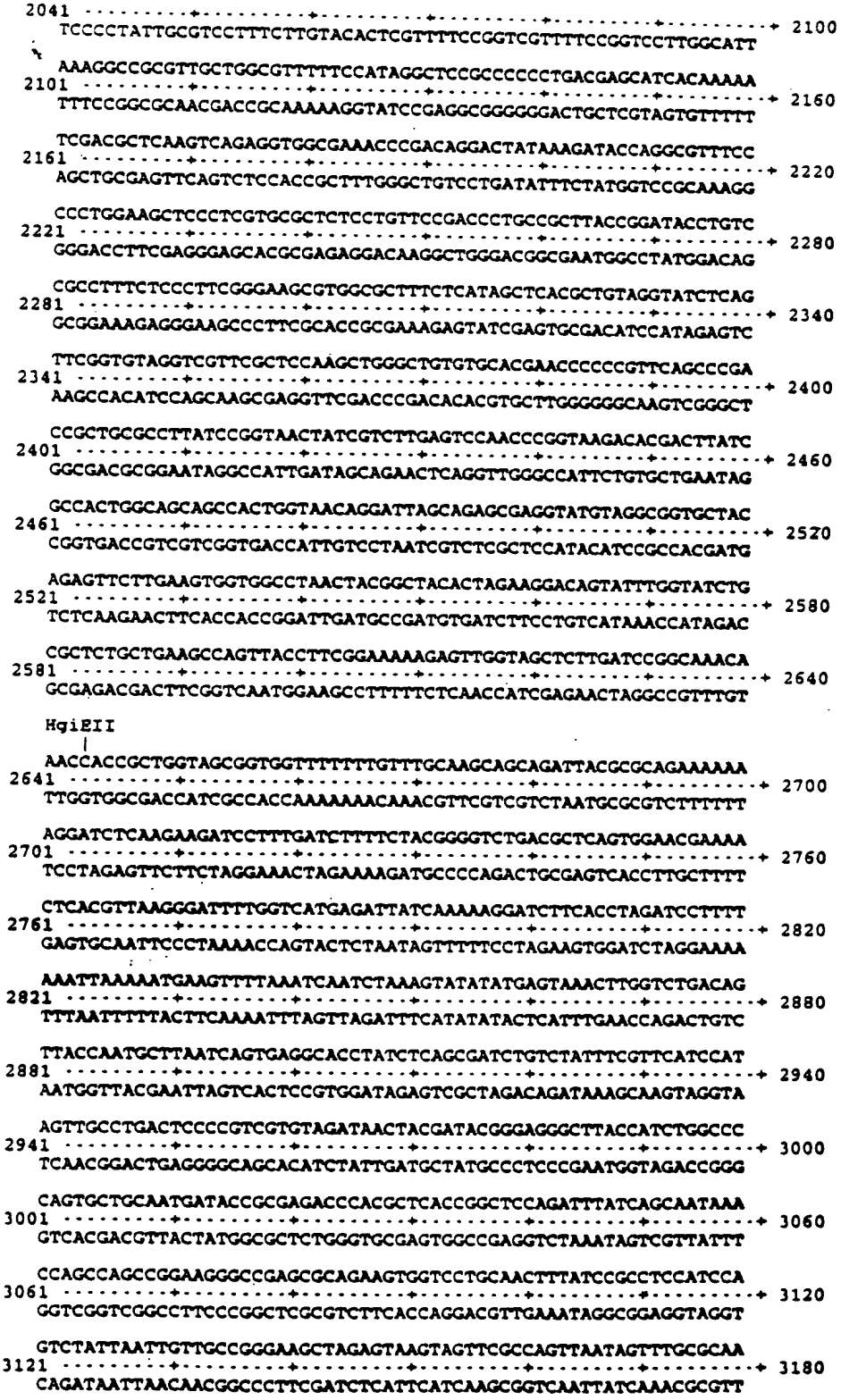


Figure 29D

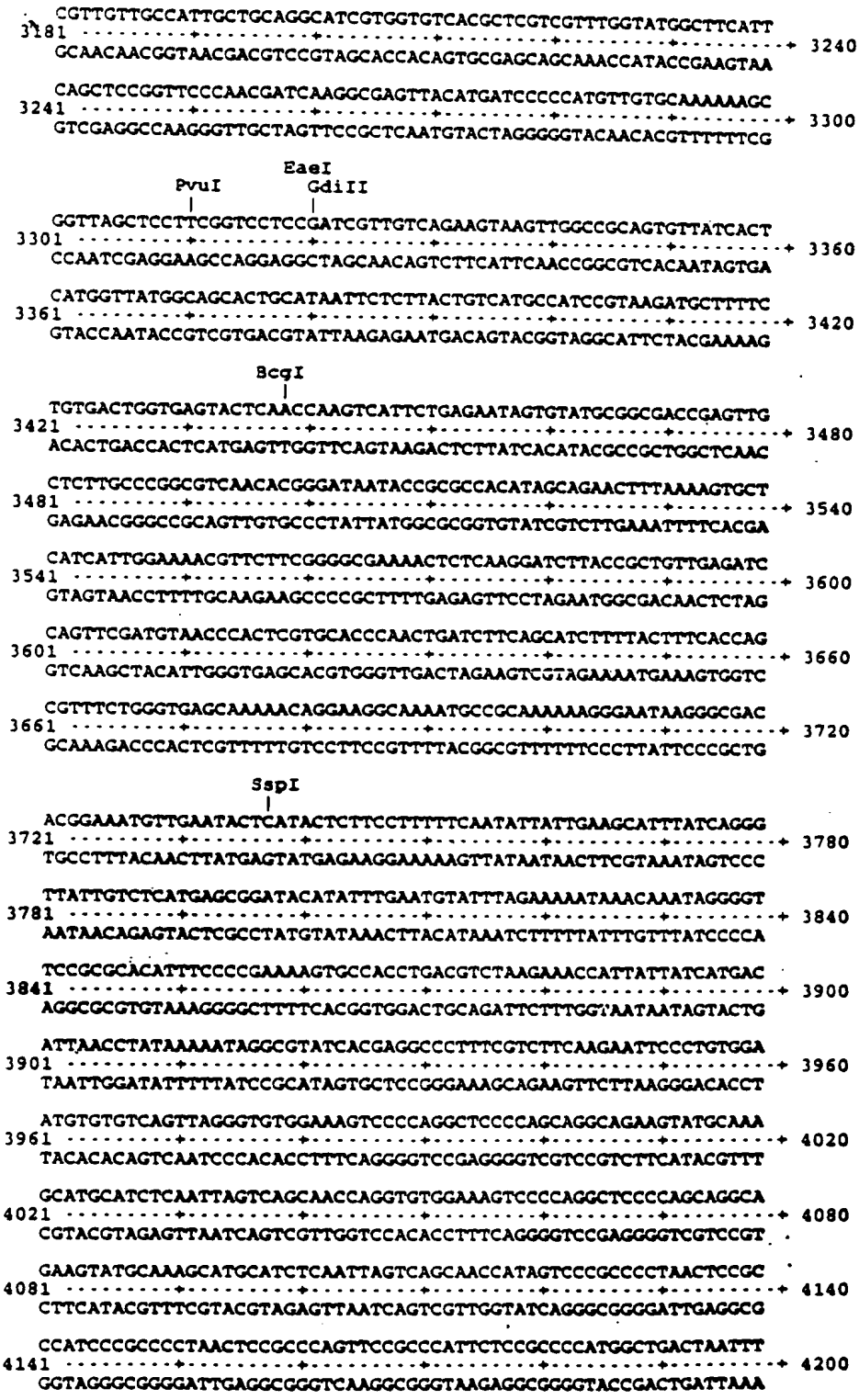


Figure 29E

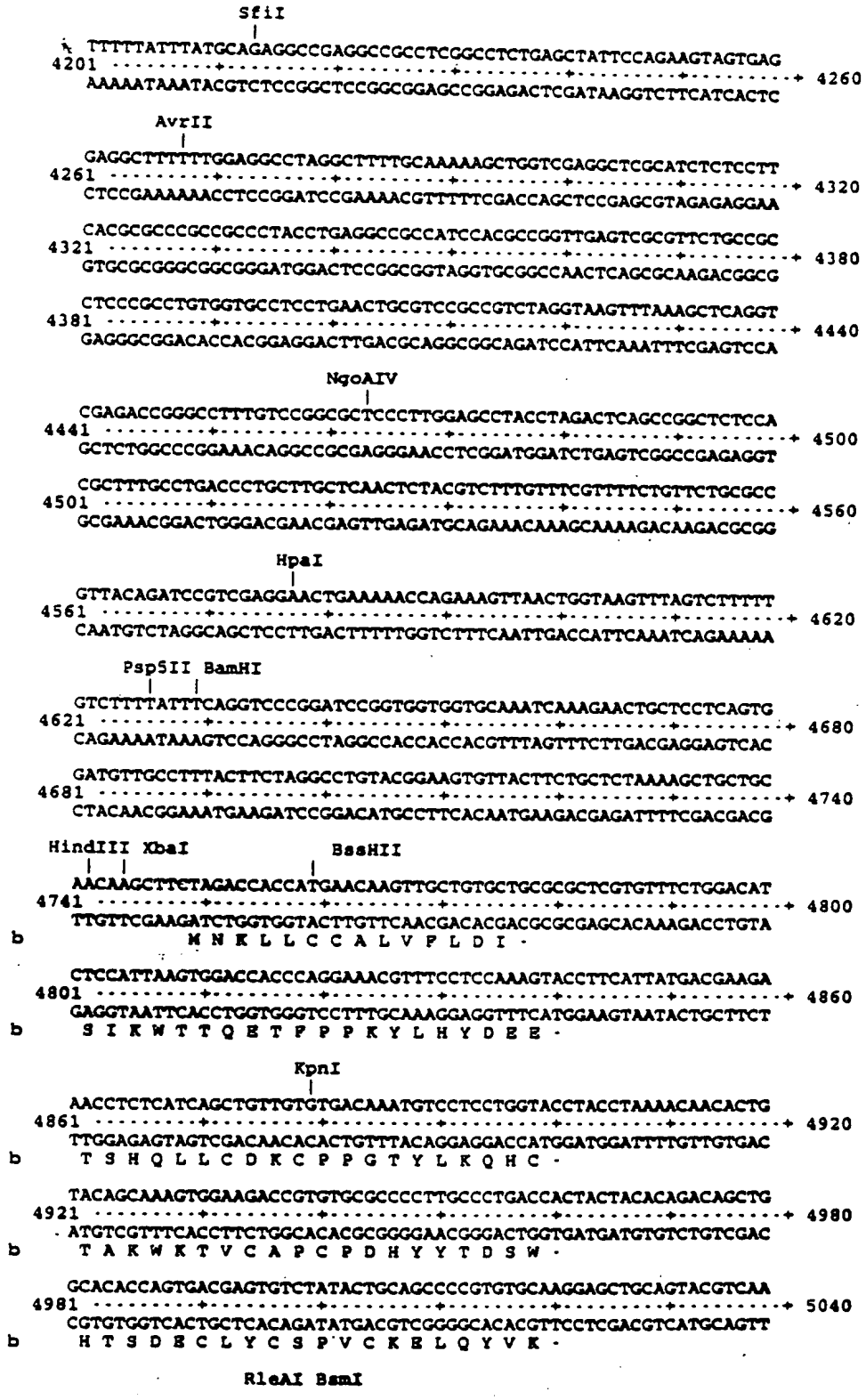


Figure 29F

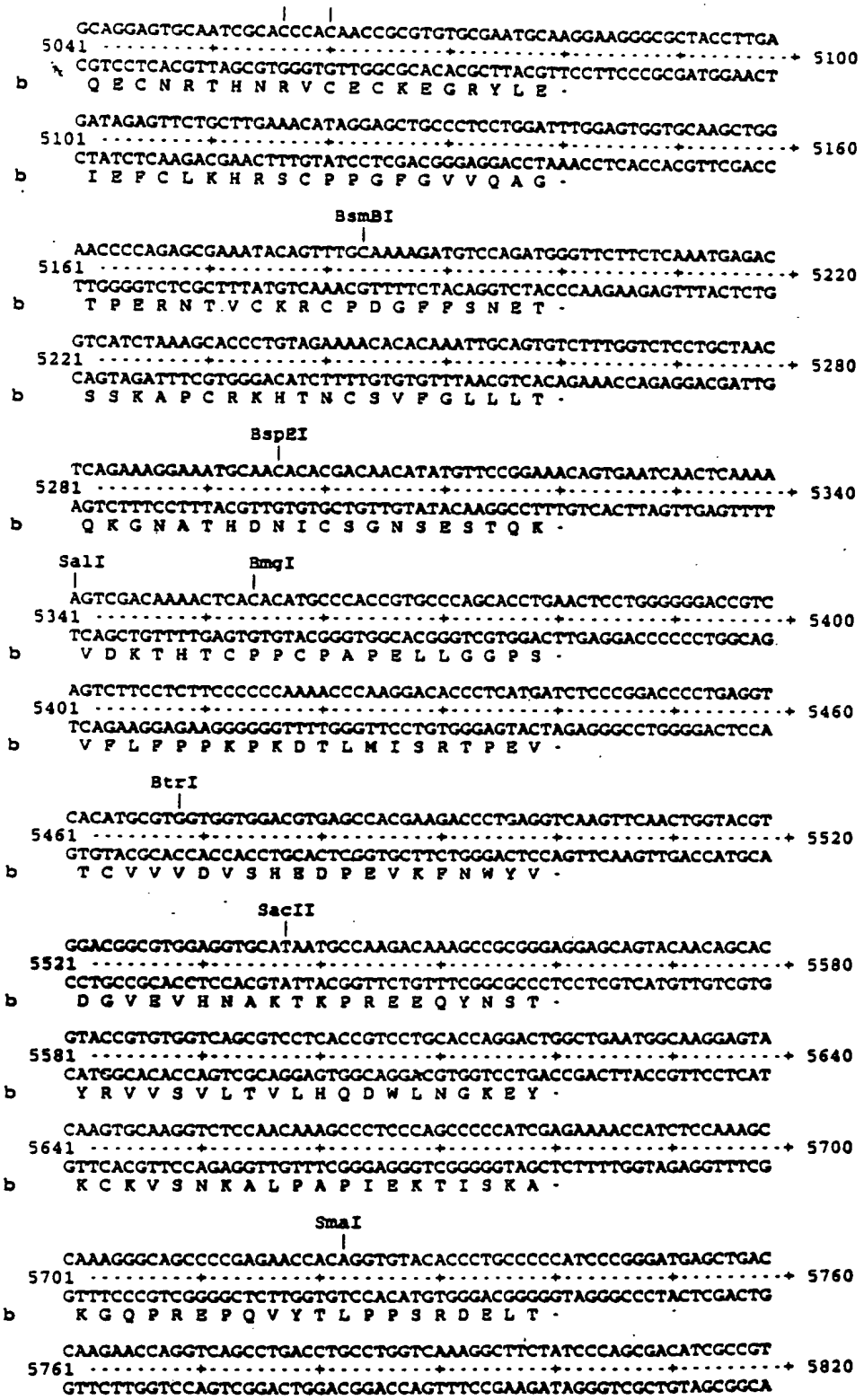

GCAGGAGTGCAATCGCACCCACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGA
5041
CGTCCTCACGTTAGCGTGGGTGTTGGCGCACACGCTTACGTTCCTTCCCGCGATGGAACT
5100
b Q E C N R T H N R V C E C K E G R Y L E -
GATAGAGTTCTGCTTGAAACATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGG
5101
CTATCTCAAGACGAACTTTGTATCCTCGACGGGAGGACCTAAACCTCACCACGTTCGACC
5160
b I E F C L K H R S C P P G F G V V Q A G -
BsmBI
AACCCCAGAGCGAAATACAGTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGAC
5161
TTGGGGTCTCGCTTTATGTCAAACGTTTTCTACAGGTCTACCCAAGAAGAGTTTACTCTG
5220
b T P E R N T V C K R C P D G F F S N E T -
GTCATCTAAAGCACCCTGTAGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAAC
5221
CAGTAGATTTCGTGGGACATCTTTTGTGTGTTTAACGTCACAGAAACCAGAGGACGATTG
5280
b S S K A P C R K H T N C S V F G L L L T -
BspEI
TCAGAAAGGAAATGCAACACACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAA
5281
AGTCTTTCCTTTACGTTGTGTGCTGTTGTATACAAGGCCTTTGTCACTTAGTTGAGTTTT
5340
b Q K G N A T H D N I C S G N S E S T Q K -
SalI
BmgI
AGTCGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCCTGGGGGGACCGTC
5341
TCAGCTGTTTTGAGTGTGTACGGGTGGCACGGGTCGTGGACTTGAGGACCCCCCTGGCAG
5400
b V D K T H T C P P C P A P E L L G G P S -
AGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGT
5401
TCAGAAGGAGAAGGGGGGTTTTGGGTTCCTGTGGGAGTACTAGAGGGCCTGGGGACTCCA
5460
b V F L F P P K P K D T L M I S R T P E V -
BtrI
CACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGT
5461
GTGTACGCACCACCACCTGCACTCGGTGCTTCTGGGACTCCAGTTCAAGTTGACCATGCA
5520
b T C V V V D V S H E D P E V K F N W Y V -
SacII
GGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCAC
5521
CCTGCCGCACCTCCACGTATTACGGTTCTGTTTCGGCGCCCTCCTCGTCATGTTGTCGTG
5580
b D G V E V H N A K T K P R E E Q Y N S T -
GTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTA
5581
CATGGCACACCAGTCGCAGGAGTGGCAGGACGTGGTCCTGACCGACTTACCGTTCCTCAT
5640
b Y R V V S V L T V L H Q D W L N G K E Y -
CAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGC
5641
GTTCACGTTCCAGAGGTTGTTTCGGGAGGGTCGGGGGTAGCTCTTTTGGTAGAGGTTTCG
5700
b K C K V S N K A L P A P I E K T I S K A -
SmaI
CAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGAC
5701
GTTTCCCGTCGGGGGCTCTTGGTGTCCACATGTGGGACGGGGGTAGGGCCCTACTCGACTG
5760
b K G Q P R E P Q V Y T L P P S R D E L T -
CAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGT
5761
GTTCTTGGTCCAGTCGGACTGGACGGACCAGTTTCCGAAGATAGGGTCGCTGTAGCGGCA
5820

Figure 29G

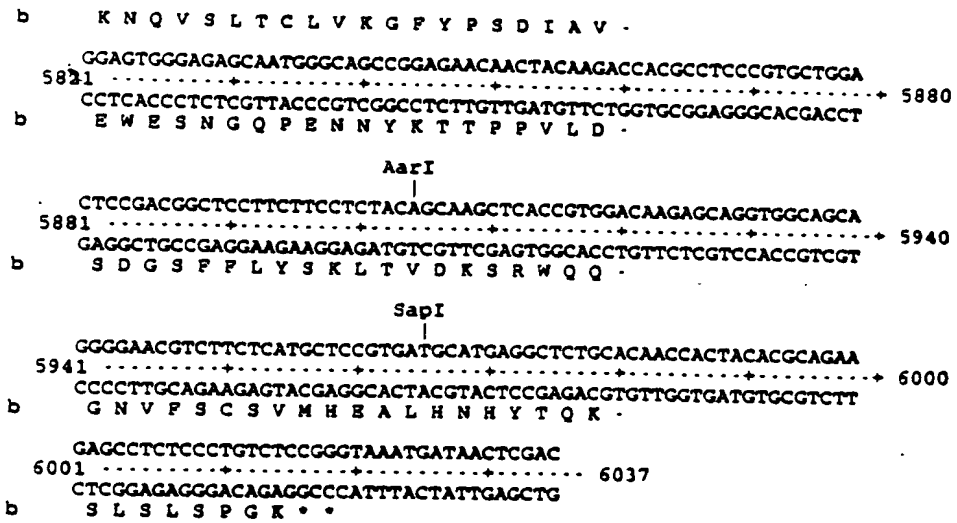
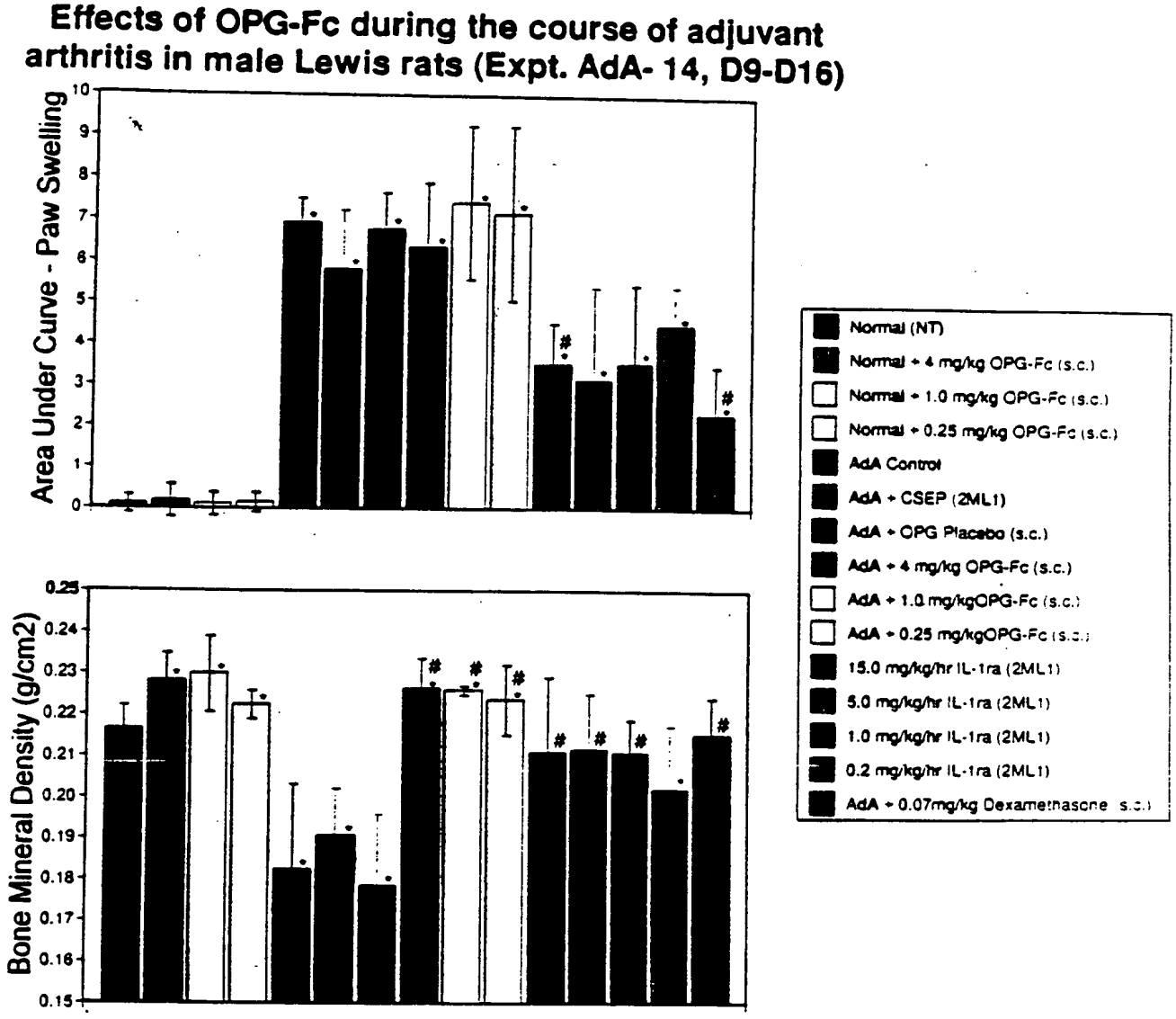
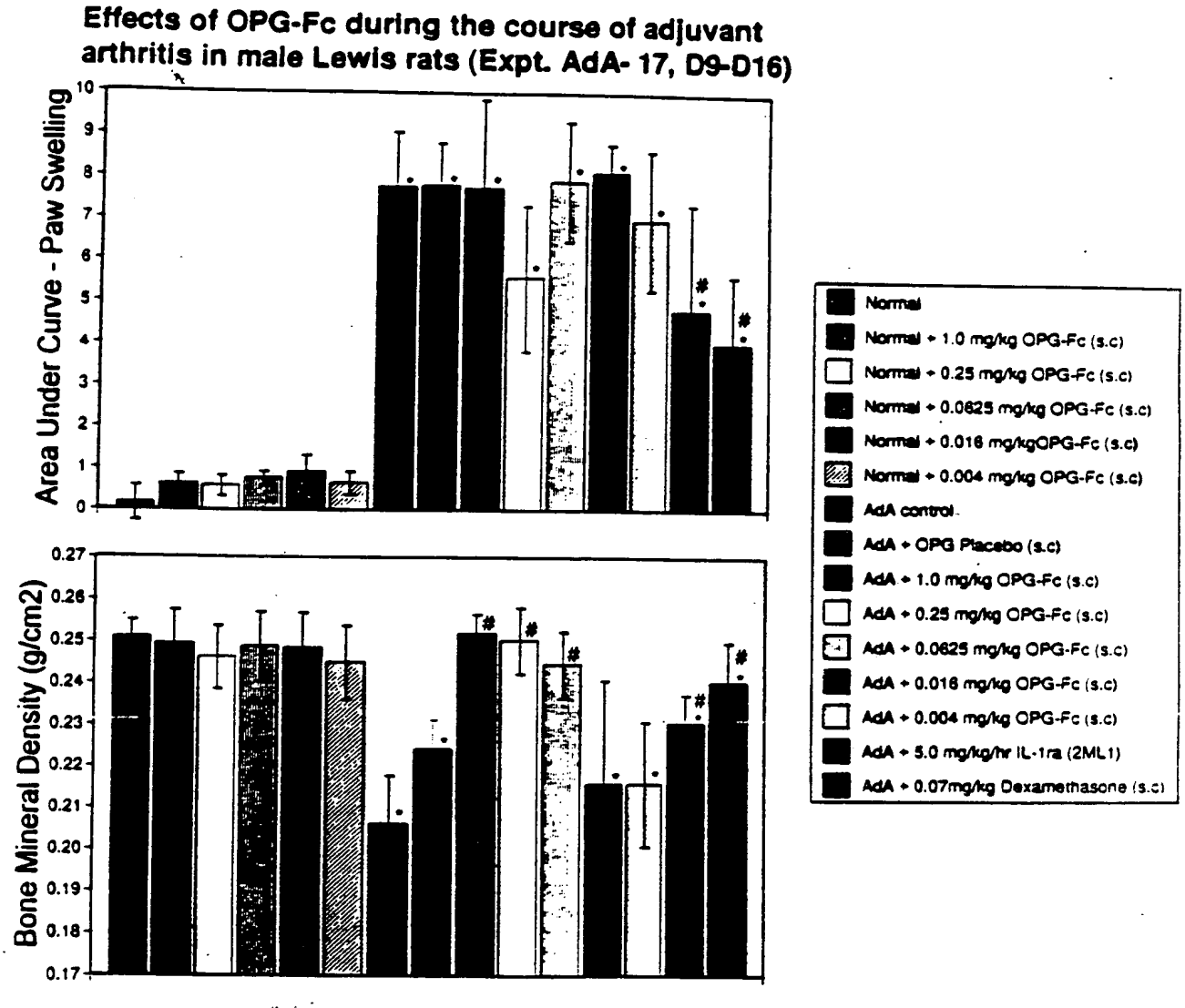


Figure 30A



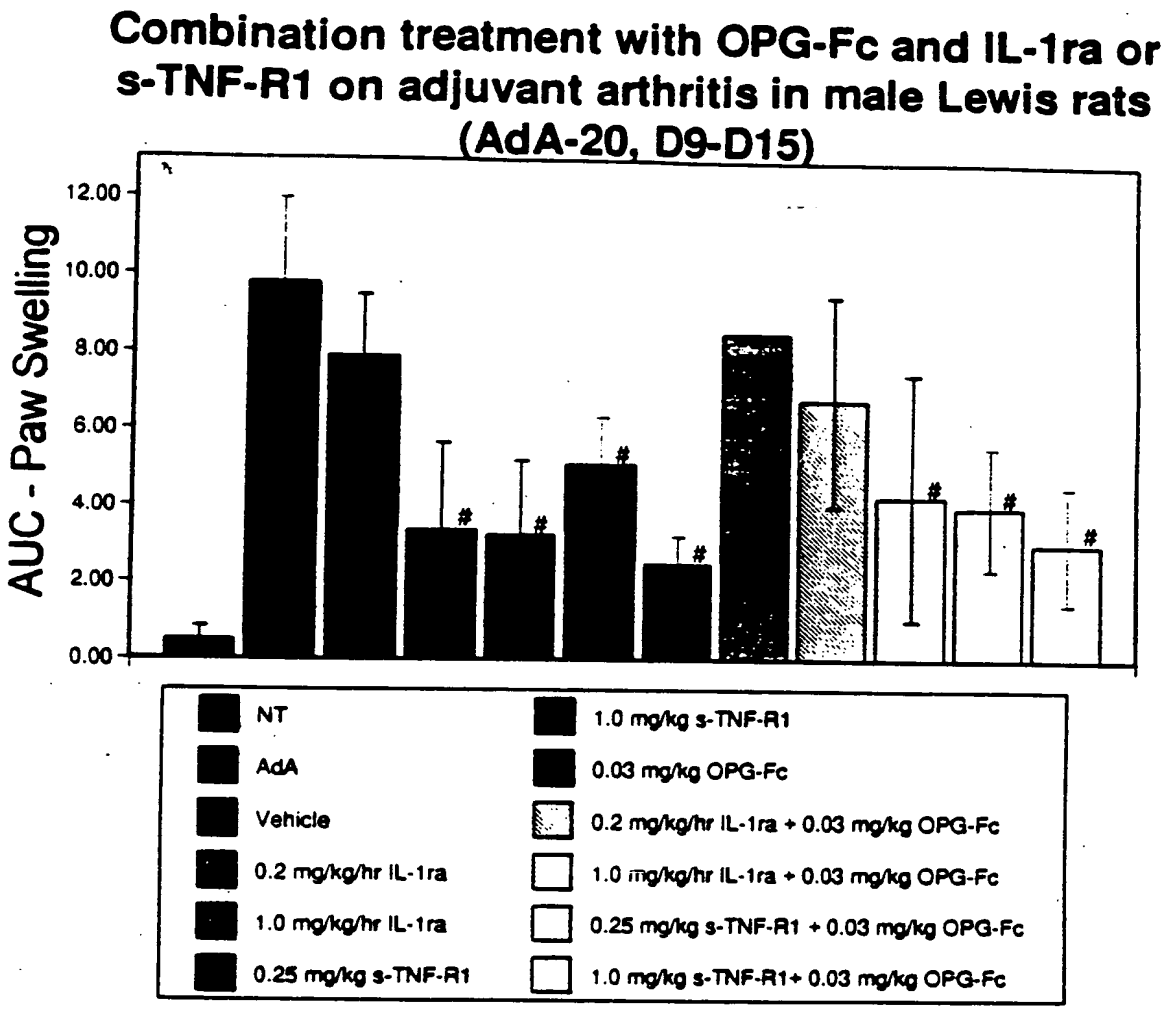
Paws from rats with adjuvant arthritis induced by 0.5mg mycobacteria in oil were analyzed by DEXA for BMD. Evaluation of BMD, a 29mm X 25mm box was centered at the calcaneus (expt AdA-14 2/99, Amgen nb#22957 p47-49).
* compared to normal, # compared to vehicle
$P < 0.05$ Mann-Whitney U test

Figure 30B



Paws from rats with adjuvant arthritis induced by 0.5mg mycobacteria in oil were analyzed by DEXA for BMD. Evaluation of BMD, a 29mm X 25mm box was centered at the calcaneus (expt AdA -17 3/99, Amgen nb#22957 p62-65).
* compared to normal, # compared to vehicle
$P < 0.05$ Mann-Whitney U test

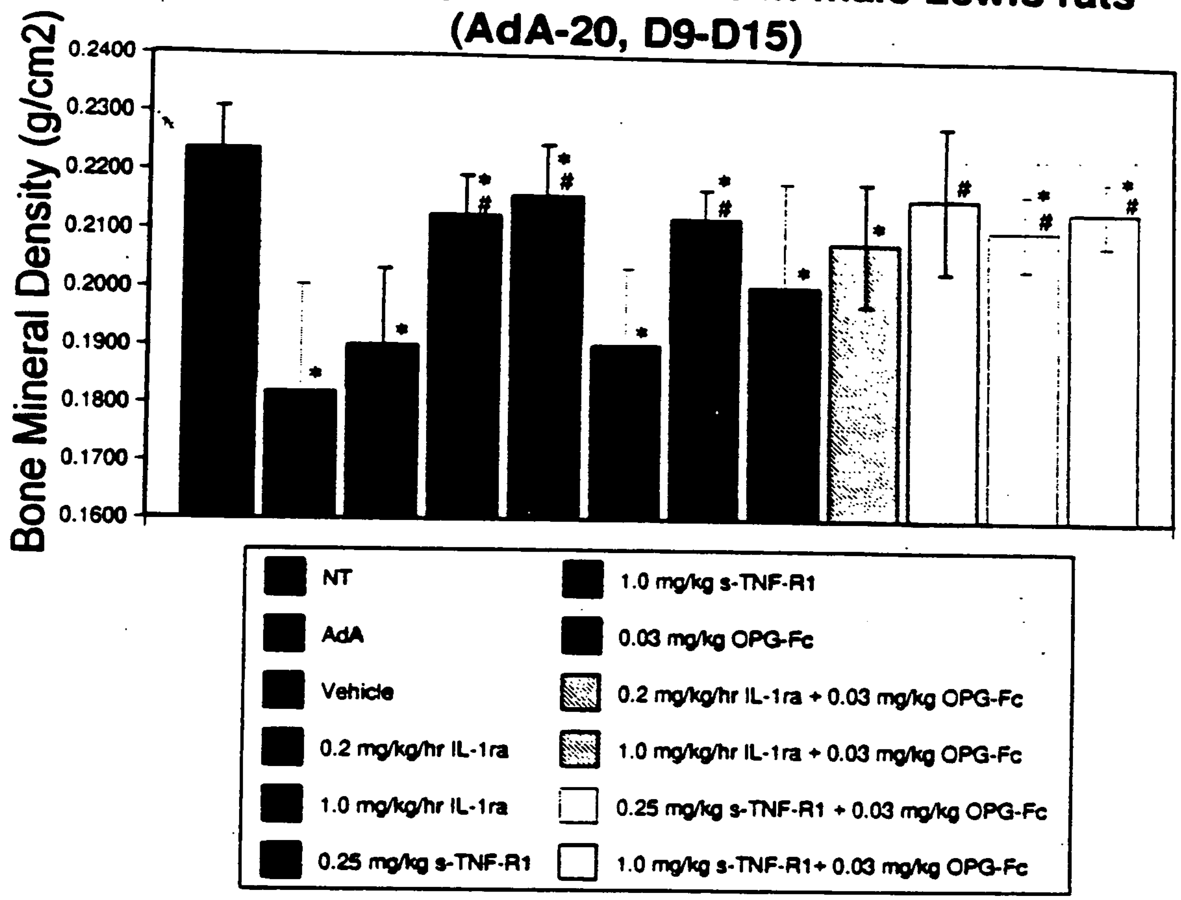
Figure 31A



Paws from rats with adjuvant arthritis induced by 0.5mg mycobacteria in oil were analyzed by DEXA for BMD. (expt AdA-20 5/99, Amgen nb#22957 p84).
* compared to normal, # compared to vehicle
$P < 0.05$ Mann-Whitney U test.
All groups are significant vs normal

Figure 31B

Combination treatment with OPG-Fc and IL-1ra or s-TNF-R1 on adjuvant arthritis in male Lewis rats (AdA-20, D9-D15)



Paws from rats with adjuvant arthritis induced by 0.5mg mycobacteria in oil were analyzed by DEXA for BMD. Evaluation of BMD, a 29mm X 25mm was centered at the tibiotarsal region. (expt AdA-20 5/99, Amgen nb#22957 p88).
* compared to normal, # compared to vehicle
.P < 0.05 Mann-Whitney U test